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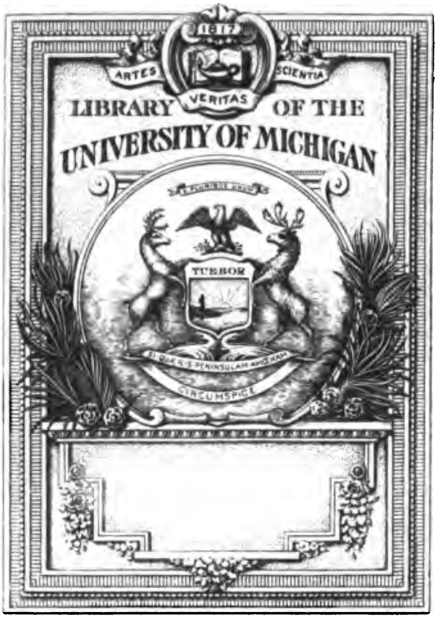

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A SIMPLE METHOD

OF

MODERN HARMONY

BY

CARL W. GRIMM.

IN TWO PARTS.

PART ONE.
$1.00.

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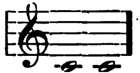
CHAPTER I.

INTRODUCTION.

§ 1. RHYTHM, MELODY AND HARMONY are the three essential factors of music. Rhythm is the change, but systematic grouping, of tones of various duration. If tones of different pitch are heard one after another in logical order, we get what is called Melody; if tones of different pitch are heard together, we get Harmony (a chord). In its widest sense Harmony means the science of chords, their relationship and connection. It is the laws of harmony that we shall explain in this book, but it will be seen as we proceed that the question of rhythm or melody is often so closely connected with that of harmony that it is impossible to treat of one without also paying some attention to the other.

§ 2. INTERVALS.—An interval is the distance and difference between two tones, heard one after the other or at the same moment. Intervals have numerical names. These names depend on the number of letters which are included from one key of the key-board to another, or from one line of the staff to another. Intervals are measured by means of half-steps (half tones or semitones) and whole steps. A half-step is the term of measurement for the smallest distance. It is the distance between any one note, and the nearest note to it, above or below. For example, on the piano, the nearest note to C is B on the one side (below), and C♯ on the other side (above). From B to C, and from C to C♯ are, therefore, both half-steps. Similarly from F♯ to F♮, and from F♯ to G will be half-steps; but from G to A will not be a half-step, for A is not the nearest tone to G; G♯ (or A♭) comes between them. It is evident that two half-steps together will make a whole step. The nomenclature of intervals, especially the modified ones, is, unfortunately, in a somewhat confused state and not uniform in all text-books. The classification adopted here will recommend itself for its simplicity, because the intervals are arranged into only three classes: normal, enlarged and narrowed. First of all we will learn the accurate size of the normal intervals, and then the modifications (augmentation and contraction) of them. If a tone be sounded and the same tone be repeated, or sounded simultaneously by some other instrument (or voice), a "prime" is formed, for example: 

The word prime means an interval of one degree; it also means the starting note, the one from which the other notes are counted. A prime makes use of only one letter for two sounds which have the same pitch, or very nearly the same, as the paragraph on

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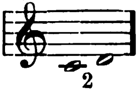
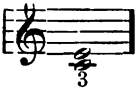
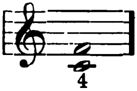
"modified" intervals will show. This prime is also called "perfect." Instead of always writing down the name of an interval, we will use figures. For the word prime the figure 1, seconds are indicated by 2, thirds by 3, etc.

A "second" (2) is an interval between two conjunct degrees; it includes two letters. A "normal" second contains one whole step, for example: 

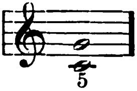
This second is also called a "major" second.

A "third" (3) is an interval of three degrees; it includes three letters. A "normal" third contains two whole steps, for example: 

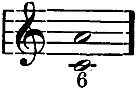
This is also named a "major" third.

A "fourth" (4) is an interval of four degrees; it includes four letters. A "normal" fourth contains two whole steps and one half-step: 

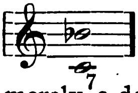
This is also called a "perfect" fourth.

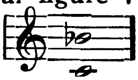
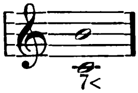
A "fifth" (5) is an interval of five degrees; it includes five letters. A "normal" fifth contains three whole steps and one half-step: 

This is also called a "perfect" fifth.

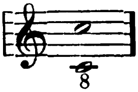
A "sixth" (6) is an interval of six degrees; it includes six letters. A "normal" sixth contains four whole steps and one half-step: 

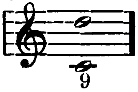
This is also called a "major" sixth.

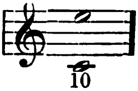
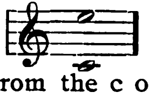
A "seventh" (7) is an interval of seven degrees; it includes seven letters. A "normal" seventh contains five whole steps: 

It is a whole step smaller than the octave. This is also called a "minor" seventh. It is to be borne in mind that our term "normal" and our figures do not indicate merely a degree, but an exact size of the interval. Our figure 7 always indicates the "minor" (dominant) seventh:  therefore, we indicate the "major" seventh 

as a "raised" seventh. The mark: < (short crescendo sign) means "raised," as will be further explained in the paragraph on "modified" intervals.

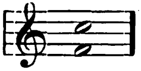
An "octave" (8) is an interval of eight degrees; it includes eight letters. It is always the distance from one tone to the next (above or below) of the same name. A "normal" octave contains six whole steps:  This is also called a "perfect" octave.

A "ninth" (9) is an interval of nine degrees; it includes nine letters. It is composed of an octave and a second. A "normal" ninth contains seven whole steps:  This is also called a "major" ninth.

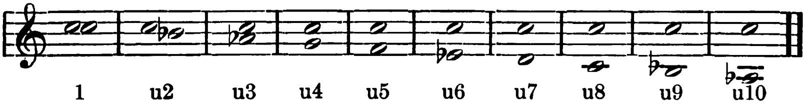
A "tenth" (10) is an interval of ten degrees; it includes ten letters. It is composed of an octave and a third. A "normal" tenth contains eight whole steps:  This is also called a "major" tenth. Intervals larger than tenths and even tenths are commonly reduced to the nearest octave, and so to their lowest terms. Thus the tenth  is usually spoken of as a third, as if it were counted from the c on the third space. It will be found useful to impress upon the memory that:

the normal or "major" second (2) is midway between the prime and third; it is at an equal distance of a whole step from each;
the normal or "perfect" fourth (4) is between the third and fifth; there is an intervening space of a half step from the third and a whole step from the fifth;
the normal or "major" sixth (6) is next to the fifth; a whole step farther away from the prime than is the fifth.

EXERCISE.—Write out the normal intervals up to the tenths of the following notes: g, d, a, e, b, f♯, c♯, g♯, d♯, a♯, e♯, b♯, f, b♭, e♭, a♭, d♭, g♭, c♭, f♭.

§ 3. NORMAL UNDER-INTERVALS.—Intervals are usually reckoned upwards, but occasionally also from the upper tone downward; then it must be expressly stated. In either case the interval is, of course, the same, but when reckoned downward it is called an under-interval. Thus the interval  is a fifth, but f is the under-fifth from c.

EXERCISE.—Write out the under-intervals down to the tenths of the following notes: g, d, a, e, b, f♯, c♯, g♯, d♯, f, b♭, e♭, a♭, d♭, g♭, c♭, f♭, as follows:



u = under.

§ 4. **MODIFIED INTERVALS.**—Intervals may be modified either by raising or lowering one of their tones. Care must be taken not to change the name of the interval. Thus, if we wish to enlarge the normal fourth C–F by a half-step we must write C–F♯, not C–G♭, otherwise the interval will not be represented as a modified fourth, but as a modified fifth.

< is the sign for raising the pitch of a note a half step.

> (short decrescendo mark) is the sign for lowering the pitch of a note a half-step.

TABLE.

Showing the meaning of the figures with < and >.

	For c.	For g♯.	For f♭.
1 < raised (augmented) prime,	c♯	g×	f
2 < raised (augmented) second,	d♯	a×	g
2 > lowered (minor) second,	d♭	a	g♭♭
3 < raised (augmented) third,	e♯	b×	a
3 > lowered (minor) third,	e♭	b	a♭♭
4 < raised (augmented) fourth,	f♯	c×	b♭
4 > lowered (diminished) fourth,	f♭	c	3♭b
5 < raised (augmented) fifth,	g♯	d×	c
5 > lowered (diminished) fifth,	g♭	d	c♭♭
6 < raised (augmented) sixth	a♯	e×	d
6 > lowered (minor) sixth,	a♭	e	d♭♭
7 < raised (major) seventh,	b	f×	e♭
7 > lowered (diminished) seventh	b♭♭	f	3♭e
8 < raised (augmented) octave,	c♯	g×	f
8 > lowered (diminished) octave)	c♭	g	f♭♭

9 < = 2 <, 9 > = 2> ,
10< = 8 <, 10 > = 3 >.

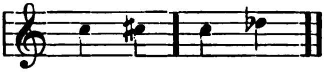
	For c.	For g♯.	For e.
u 1 > lowered under-prime,	c♭	g	e♭
u 2 > lowered under-second,	b♭♭	f	d♭
u 2 < raised under-second,	b	f×	d♯
u 3 > lowered under-third,	a♭♭	e♭	c♭
u 3 < raised under-third,	a	e♯	c♯
u 4 > lowered under-fourth,	g♭	d	b♭
u 4 < raised under-fourth,	g♯	d×	b♯
u 5 > lowered under-fifth,	f♭	c	a♭
u 5 < raised under-fifth,	f♯	c×	a♯
u 6 > lowered under-sixth,	e♭♭	b♭	g♭
u 6 < raised under-sixth,	e	♯	g♯

	For c.	For g♯.	For e.
u 7 > lowered under-seventh, -	d♭	a	f
u 7 < raised under-seventh, - - - -	d♯	a×	f×
u 8 > lowered under-octave, - -	c♭	g	e♭
u 8 < raised under-octave, - - - -	c♯	g×	e♯

u 9 > = u 2 >, u 9 < = u 2< ,
u10 > = u 3 >, u 10 < = u 3 <.

EXERCISE.—Write out tables similar to the above, using each of the following notes as a starting point: g, d, a, e, b, f♯, c♯, g♯, d♯, a♯, f, b♭, e♭, a♭, d♭, g♭, c♭, f♭.

If the half-step is expressed upon the same staff-degree, it is called a small or chromatic half-step; if it is expressed upon contiguous degrees, it is called a great or diatonic half-step.



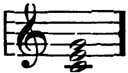
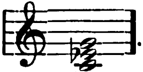
Chromatic half-step. Diatonic half-step.

This classification, which might be called a "harmonic" classification, of intervals is entirely sufficient, because we figure every interval from the fundamental tone of a major or minor chord, and consider it in its relation to the one or the other. Therefore, we will never have to figure doubly contracted or extended intervals like a "diminished" third, for example e—g♭ found in the chord: c—e—g♭. We could indicate this and all such "melodic" intervals as doubly contracted or extended by using these signs ⋧ and ⋦, for example e—g♭ = 3 ⋧; but, as the course will show, our method never requires the double lowering or raising signs.

CHAPTER II.

THE PURE PRINCIPAL HARMONIES.

(TONIC AND DOMINANTS.)

§ 5. MAJOR AND MINOR CHORDS. (TRIADS). There are only two kinds of consonant chords, major chords and minor chords; all dissonant chords are to be conceived, explained and indicated as modifications of major or minor chords. Major chord and minor chord are the two foundation stones of harmonic structure; dissonant chords are only modifications of them. The major chord consists of a fundamental (prime), major third and perfect fifth:  The minor chord consists of a fundamental (prime), minor third and perfect fifth: . The minor chord is the very opposite of the major chord, in sound as well as in construction. The major chord sounds clear, strong and cheerful, whereas the minor chord

sounds dark, weak and sorrowful. If we look closely at the intervals of these chords, we find in the major chord a minor third above the major third: g
e) minor third.
c) major third.

In the minor chord we find it reversed, namely a major third above the minor third: g
e♭) major third.
c) minor third.

The major chord consists of a major third and a perfect fifth, the minor chord shows the same intervals if measured downward!

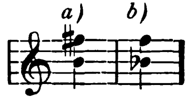
g∧
major third (∧e) perfect fifth   major third (g
(c   ∨e♭) perfect fifth.
c∨

The minor chord then, in its construction, is the exact opposite and counterpart of the major chord. These two kinds of chords are co-equal in value and importance; they express contrasting moods. The tones forming these chords coalesce (blend) into a perfect unity, and around these two chords all music revolves.

§ 6. CHAIN OF FIFTHS, MAJOR AND MINOR THIRDS. In order to learn with certainty all major and minor chords, pupils will do well to impress firmly on their minds the "chain of fifths" produced by the natural notes. Perfect fifths are formed by the tones of the natural scale in the following order:

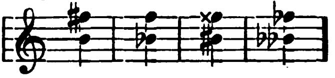
(ascending) F–C–G–D–A–E–B }
(descending) B–E–A–D–G–C–F } (to be memorized perfectly)

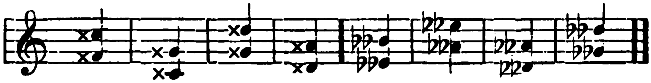
all of which are composed of three whole steps and a half-step. The connecting fifth, B F, of this series is no perfect fifth; it is too small by a half-step. It is called a "diminished" fifth. If the perfect fifth above B be gained, then F must be raised a half-step, that is, F becomes F♯; if the perfect fifth below F be taken, then B must be lowered a half-step; that is, B becomes B♭:



The fifths derived from B F distinguish themselves from all others in this: that the two notes have different signatures (as at a) the lower one is natural note, the upper one has a ♯; as at b) the upper one is natural note, the lower one has a ♭); whereas all other fifths have like signatures, that is to say, either both notes are natural notes, or both have a ♯ or both have a ♭. For the fifth of F♯ is C♯, because both notes of the F C are raised a half-step, so that the proportion remains the same; the fifth of C♯ is G♯, etc. In like manner E♭ is the under-fifth of B♭, because both notes of the E B are lowered a half-step, so that here also the proportion remains the same; the under-fifth of E♭ is A♭, etc. In other words, when we supply with sharps and flats all notes of the above rows of natural notes in the order of fifths, we will produce new series of fifths:

(ascending with ♯) F♯–C♯–G♯–D♯–A♯–E♯–B♯ } (to be memorized
(descending with ♭) B♭–E♭–A♭–D♭–G♭–C♭–F♭ } perfectly)

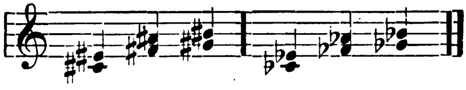
At B♯ and F♭ we have reached the end again; for if F♯ is the fifth of B it cannot be the fifth of B♯, and if B♭ is the under-fifth of F it cannot be the under-fifth of F♭; the fifths B♯ F♯ and B♭ F♭, again a half-step too small, require, therefore, in the former a further raising of the upper note, in the latter a further lowering of the lower note. To the above enumerated irregular-looking perfect fifths, B♭ F and B F♯ belong likewise those derived from B F, viz.: B♯ F× and B𝄫 F♭:  As for the remainder, only such fifths possess the proper size again as have both × or 𝄫 prefixed:



Triple sharpings and flattings surpass the limit of the imaginative faculty. The double-sharps and double-flats already test it greatly, since they presuppose the single sharpings and flattings, and lose sight of the natural notes entirely. If the pupil is perfectly familiar with the series of fifths:

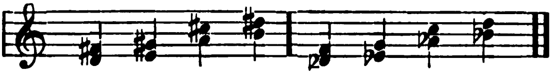
F×.	C×.	G×.	D×.	A×.	.	. .
←						
F♯.	C♯.	G♯.	D♯.	A♯.	E♯.	B♯.
←						
F.	C.	G.	D.	A.	E.	B.
						→
F♭.	C♭.	G♭.	D♭.	A♭.	E♭.	B♭.
						→
.	. .	G𝄫.	D𝄫.	A𝄫.	E𝄫.	B𝄫.

then he will be acquainted with the main pillars of all major and minor chords, the fundamentals and fifths. It is the aim now to make him thoroughly familiar also with the major and minor thirds. The three major thirds without chromatic signs are F A, C E and G B. They can be easily remembered, because they are the thirds of the first three notes in the chain of fifths: F C G] D A E B. It is clear that those thirds which are derived from F A, C E and G B by sharping or flatting both notes must be major thirds:

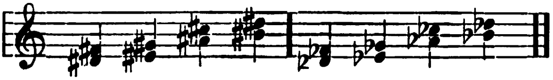


The remaining thirds without chromatic signs, D F, A C, E G and

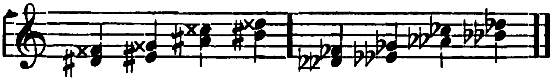
B D, are minor thirds. To make major thirds out of them the upper note must be sharped or the lower note flatted:



It is clear that those thirds which are derived from D F, E G, A C and B D by sharping or flatting both notes must be minor thirds:

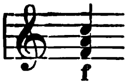


In order to make major thirds out of the preceding minor a × must be used for the upper note of the sharped ones, or a 𝄫 for the lower note of the flatted ones:

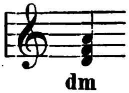


Further possible major thirds we gain by double-sharps and double-flats before both notes of the three major thirds without chromatic signs: F× A×, C× E×, G× B×, F𝄫 A𝄫, C𝄫 E𝄫 and G𝄫 B𝄫. To turn the major thirds F A, C E, G B, and all those derived from them, into minor thirds the upper note has to be lowered or the lower note has to be raised.

EXERCISE.—Write in notes all major chords from F𝄫, ascending in fifths, up to G×; and likewise all minor chords from D𝄫, ascending in fifths, up to E×.

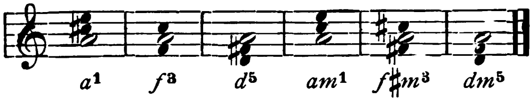


= F major chord (indicated simply by f).



= D minor chord (indicated simply by dm).
m = minor.

§ 7. *Any tone can be the member* of three major and three minor chords, for example the note A:



A is the 1, 3 or 5 of a major chord, and the 1, 3 or 5 of a minor chord.

EXERCISE.—Write the six chords to which *every note* belongs. Stop where threefold chromatic signs would become necessary.

§ 8. INVERSION OF CHORDS.—A chord is in its fundamental position when the prime is in the bass. In close position the notes will always form the intervals of prime, third and fifth.

When any note not the fundamental is in the bass, the chord is said to be *inverted.*

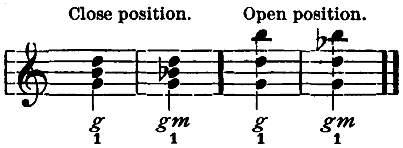
A chord is in its *first inversion*, when the third is in the bass. In close position the notes form the intervals of prime, third and sixth, and for this reason this chord is often called the *chord of the third and sixth*, or commonly *chord of the sixth.*

A chord is in its *second inversion*, when the fifth is in the bass. In close position the notes form the intervals of prime, fourth and sixth, and for this reason this chord is commonly called the *six-four chord.*

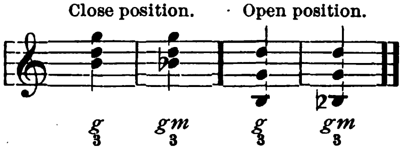
When a chord is in *open* position and the close position is wanted, then bring every note as near to the bass as possible; that is, an octave lower.

CHORDS AND THEIR INVERSIONS.

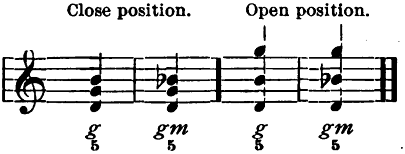
FUNDAMENTAL POSITION:
(Prime in the bass).
5
3
1



FIRST INVERSION:
(Third in the bass).
Chord of the sixth.
6
3
1



SECOND INVERSION:
(Fifth in the bass).
Six-four chord.
6
4
1



In comparing a chord and its inversions, one will find the tones forming the chords always the same, but making different impressions. The chord in its fundamental position is the front view, so to speak, and the inversions are the side views of the same chord. The chord in its fundamental position sounds restful, the inversions restless and full of motion, therefore, the inversions are found only within a composition, but never form its end.

EXERCISE.—Write the inversions of all major and minor chords.

§ 9. KEY.—Tones combine to make a chord, and chords combine to make a key. A key is a family of chords. In it the principal chord, the one that gives the key its name, is called *Tonic* (indicated briefly by T). From it the key branches out to the right (upwards) and to the left (downwards). The nearest related chord upwards is the one situated a fifth above the Tonic, and it is called the *Upper-Dominant* or *Over-Dominant*, or simply *Dominant* (indicated briefly by D). The nearest related chord downwards is the one situated a fifth below the Tonic, and it is called the *Under-Dominant* or *Subdominant* (indicated briefly by S). The Dominant represents the higher side of the key and the Subdominant the lower side. There are only three kinds of functions (offices) within a key, namely, Tonic, Dominant and Subdominant. All the other chords will have to be considered as relatives (modifications) of them.

A key is called a ***major key*** when its tonic, the principal chord, is major. A key is a ***minor key*** when its tonic is a minor chord.

C-Major Key.

S T D
f a c c e g g b d

The three chords, T, D, S, give the signature of the major key.

A-Minor Key. (Pure Minor Key).

mS mT mD
d f a a c e e g b

The three chords, mT, mS, mD, give the signature of the minor key.

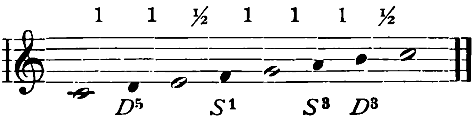
EXERCISE.—Write the schemes of all major and minor keys.

§ 10. SCALES.—A scale, generally speaking, is a series of tones arranged according to their pitch, into half and whole tone steps. Modern harmony considers scales as broken chords, whose gaps are filled up with tones (passing tones) of the key.

The principal chords constituting C-major key are:

S T D
f a c c e g g b d

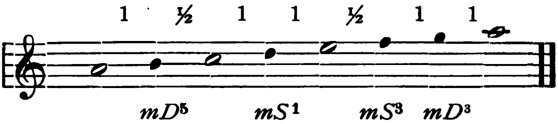
The C-major scale is a broken C-major chord (Arpeggio) with the gaps filled up with the other notes of the key, for example:



The principal chords of A minor key are:

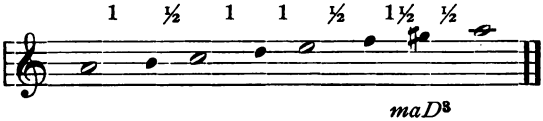
mS mT mD
d f a a c e e g b

A-minor scale is merely an A-minor arpeggio, whose gaps are filled up with the other notes of the key, for example:



EXERCISE.—Write all the major and minor scales, indicating the Tonic tones with white notes and the passing tones with black notes.

§ 11. HARMONIC MINOR SCALE. MAJOR DOMINANT IN MINOR KEY.—Modern taste is not satisfied with the old pure minor scale, but demands a leading tone (half-step) to the octave in ascending the scale. In A-minor, therefore, a G♯ is wanted:

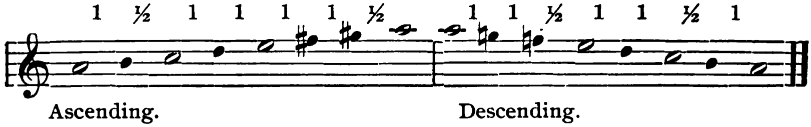


This is known as the Harmonic Minor Scale. It introduces a note not in the signature of the key. The signature of a minor key is produced by the mT, mS and mD. Instead of a minor Dominant we get a major Dominant (maD), which brightens up the higher (D) side of the minor key. So besides the mD we can use also a maD in the minor key. The major Dominant brings a major chord, that is a foreign chord, into the minor key, sufficiently indicated by the fact that the g♯ is not in the signature of A-minor. The mixed modes (keys) are a product of modern times, they were unknown to antiquity and the middle ages.

		maD
		e g♯ b
mS	mT	mD
d f a	a c e	e g b

EXERCISE.—Write the schemes of all minor keys, including in them the maD, and write also all the Harmonic Minor Scales.

§ 12. MELODIC MINOR SCALES.—Because in the *Harmonic Minor Scale* the progression from the sixth to the seventh degree is *unmelodic* (difficult to sing on account of the augmented second, 1½ steps) the sixth degree is raised, and in this manner the *Melodic Minor Scale* is produced:



The *descending* Melodic Minor scale is the pure minor scale given in § 10, it is therefore still in use.

EXERCISE.—Write all Melodic Minor scales.

§ 13. MINOR SUBDOMINANT IN MAJOR KEY.—The major key is bright and cheerful. The minor key is dark and sorrowful. The minor key is brightened by intensifying (brightening) its Dominant side by using a major Dominant chord instead of a minor. Just so the major key is darkened (made sombre) by intensifying (darkening) its Subdominant side by using a minor Subdominant chord instead of a major. Remember that major and minor are opposites, not only in the construction of chords but also in the construction of keys, consequently if we want to find the corresponding chord in the major key, we must look for it on the reverse side of that of the minor key, and vice versa.

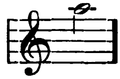
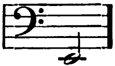
$$\overbrace{f \quad a \quad c}^{S} \qquad \overbrace{c \quad e \quad g}^{T} \qquad \overbrace{g \quad b \quad d}^{D}$$

$$\overbrace{f \quad a\flat \quad c}^{mS}$$

EXERCISE.—Write the schemes of all major keys, including in them the mS.

§ 14. FOUR-PART WRITING.—Having become familiar with all the major and minor keys and with the major and minor chords belonging to them, the next step is to learn how to connect these chords with one another. For this purpose writing for four parts (voices) is considered the best form of practice.

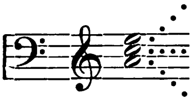
The voices are called *Soprano*, *Alto*, *Tenor and Bass*. The *Soprano* is the upper part, it is the principal melody. The *Bass* is next to it in importance, it is the lowest of the four parts. The voice next below the soprano is the *Alto*, and the one next above the bass is called the *Tenor*.

The soprano should not go higher than  and the bass should not go below .

Since the chords have only three different tones, one of them must be *doubled* when there are four parts.

The lowest note (the fundamental, 1.) of a chord is the best for doubling. It may even be trebled. The next best note to double is the highest note (the fifth, 5.) of a chord. The third should, generally, not be doubled. This "doubling" may occur either in the same tone region or in another octave.

The highest note (5) of a chord may be omitted, the third is never omitted.



may be omitted, but also doubled.

must not be omitted, and generally not be doubled.

good bass tone (fundamental), best for doubling.

When these notes are read in the Bass clef, we get a major chord, when read in the Treble clef we get a minor chord.

Remember the following scheme in regard to the distances of the voices from each other:

SOPRANO
. . . . . not more than an octave.
ALTO
. . . . . less than an octave.
TENOR
. . . . . may sometimes be more than an octave.
BASS

Greatest distance between the voices

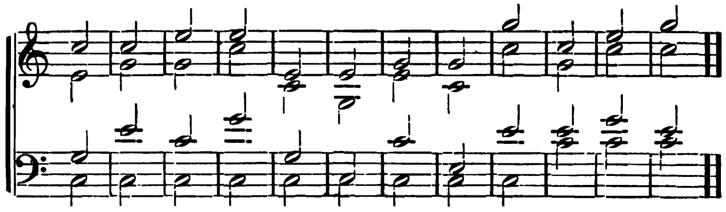
The best note for the bass is the prime (fundamental) of a chord, the next best note is the third. At the close of a period (musical sentence) it is strictly the rule to have the prime in the bass. To begin and close with the fundamental tone (1) in the soprano gives great decision and repose to that part.

The exercises are to be written in the simplest way with the two clefs, treble and bass. On the treble staff write the Soprano part with the note-stems turned upwards and the Alto with the stems turned downwards. On the bass staff write the Tenor with stems upwards and the Bass with stems downwards.

We are now able to distribute the tones of a chord among the four voices in such a manner, that the sound effect will be a good one, for example, the C-major chord:

Fundamental tone in the Bass and Doubled.

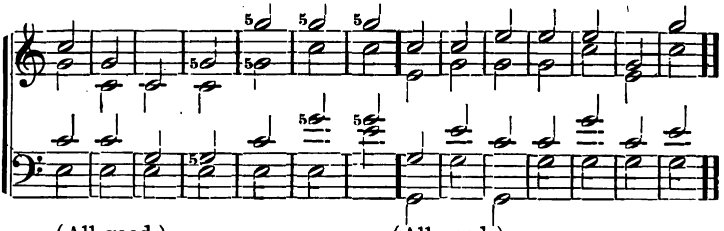
Ex. 1.



(All good.)

a) Third in the Bass. *b)* Fifth in the Bass.

Ex. 2.

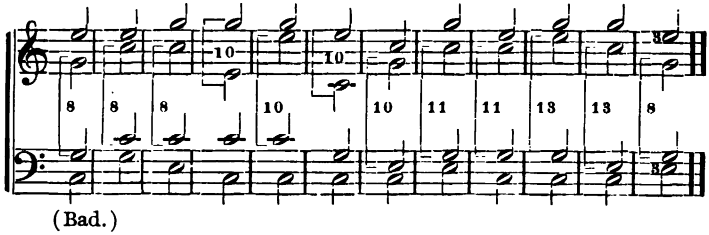


(All good.) (All good.)

In example 2 at *a)* are cases where the fifth is doubled, to which there is no objection. At *b)* all the fifths are doubled, according to the temporary rule—when the fifth is in the bass, it must be doubled.

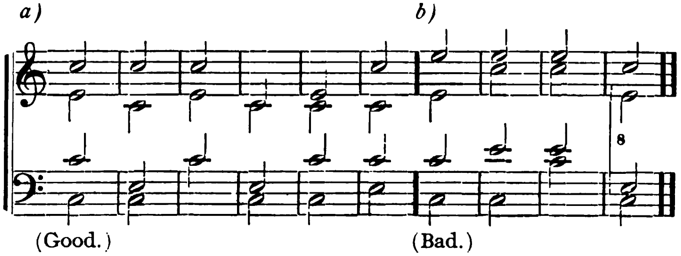
The following positions of the chord are faulty :

Ex. 3.



In the following example the fifth of the chord is omitted :

Ex. 4.



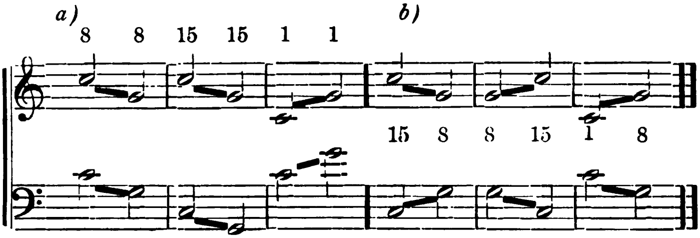
Doubling of the third, which is to be avoided altogether for the present, sounds very bad when the fifth is omitted.

EXERCISE.—Write out a number of major and minor chords after the Examples 1–4, making them "good" or "bad."

§ 15. MOVEMENT OF PARTS.—Parts (or "voices") may remain stationary, or move up or down. When two parts move up or down at the same time they are said to move in *similar motion.* When they go in the same direction, keeping the same interval apart, they are said to move in *parallel motion.* When one part goes up while the other goes down they are said to go in *contrary motion.* When one part remains stationary while the other goes up or down the motion is *oblique.*

§ 16. RULES FOR THE MOVEMENT OF THE PARTS.—The principal law of part-writing is that *each part should go its own natural path.* No two parts must move in parallel octaves or fifths, because these blend into one tone so perfectly. Moving in octaves would mean only a repetition (strengthening) of another part, and instead of four parts there would only be three. In consequence of the similar sound of octave-tones, it is even not allowable for two parts to proceed by contrary motion *from* notes of the same name *to* notes of the same name:

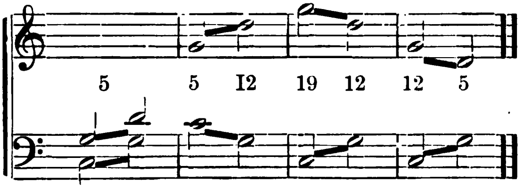
Ex. 5.



(Wrong).

Avoid also fifths in contrary motion, although these occur in the best works. The pupil should first of all acquire naturalness in the progression of parts.

Ex. 6.



(Avoid).

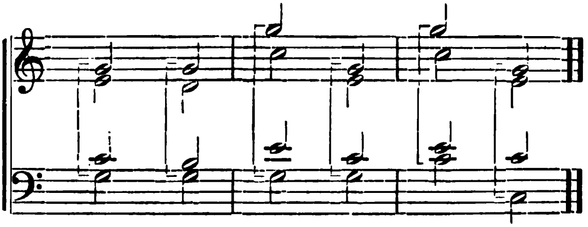
Every part ought to go to the *nearest* note of the new chord. The leading tone (half tone step) progressions are especially desirable; progressions by step are preferable to those by leap, but these are not excluded. The scale is really the basis of melody. The bass ought to go from the prime of one chord to the prime of the next, or else it should commonly go from one degree of the scale to the next, without skips. This rule applies only when the chords change. When the same harmony is continued the bass or any voice may move freely to a new position. The bass may take the thirds of chords by leap. When the fifth is in the bass, it is faulty to *skip from* it. *Skipping to* the fifth should also be avoided, unless it occurs upon a heavy beat of the measure and becomes the fundamental of the next chord. (More of this will be said when treating of the six-four chord further on).

Tones which are the same in both chords keep in the same voice.

The exercises should always keep to the natural relative position of the higher and lower parts. There should be no *crossing of parts*, that is, a lower part must not cross over a higher one.

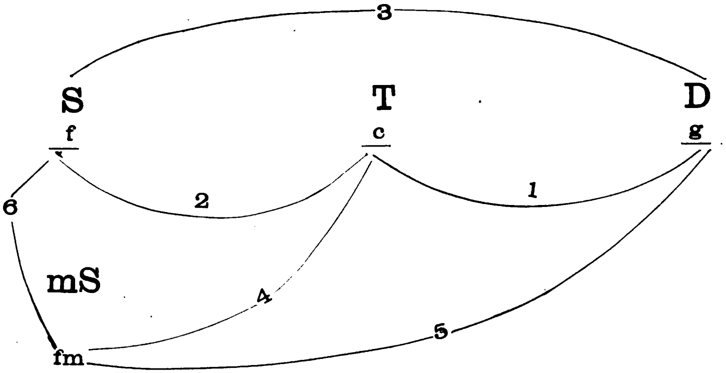
Two parts *standing still* (remaining stationary) at the distance of an octave or fifth, or skipping an octave higher or lower, are not objectionable, because the rule prohibiting consecutive octaves and fifths concerns only progressions to tones of different names:

Ex. 7.



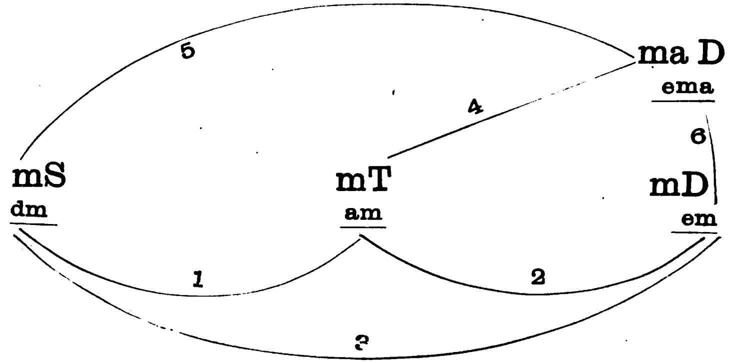
(Good).

§ 17. CLASSIFICATION OF CHORD CONNECTIONS.—In order to become readily acquainted with the various difficulties of the different chord connections, and learn the inherent force and meaning of each, it will prove a good plan to classify the chord connections by naming them according to the intervals the fundamental notes produce and noting the mode of the chords. The principal chords of the major key are T, D, S and mS. We have then six possible chord connections, each having its own individual effect and peculiarities, as the pupil will learn.



1.	*Fifth step*, major to major, ...	T to D.
2.	*Fourth step*, major to major, ...	T to S.
3.	*Whole tone step*, major to major, . . .	S to D.
4.	*Fourth step*, major to minor, . . .	T to mS.
5.	*Whole tone step*, minor to major, . . .	mS to D.
6.	*Change of mode* (*of chords*), ...	S to mS.

The principal chords of the minor key are mT, mS, mD and ma D, and we have the same number of chord connections as in the major key.



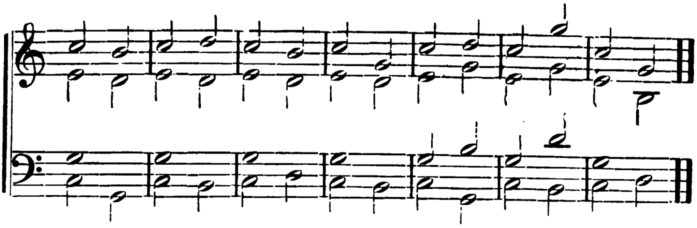
Here we find the same progressions as in the major key, but we have to figure them downwards (the opposite way), because the minor key is always the opposite of the major key, and vice versa.

1. *Fifth step*, minor to minor, . . . mT to mS.
2. *Fourth step*, minor to minor, . . . mT to mD.
3. *Whole tone step*, minor to minor, . . mD to mS.
4. *Fourth step*, minor to major, . . . mT to maD.
5. *Whole tone step*, major to minor, . . maD to mS.
6. *Change of mode (of chords)*, . . . mD to maD.

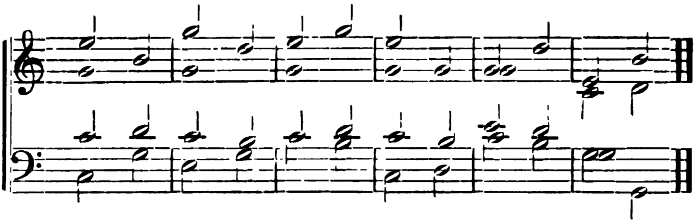
§ 18. **FIFTH STEP.** (Major to major, T—D; minor to minor, mT—mS). The Fifth step is, in the major key, a step to the nearest related chord on the upper side; in minor, it is a step to the nearest related chord on the lower side. In major it means a rising (soaring upwards), in minor a falling (sinking downwards); thus, in the first case a strengthening of the major character, in the latter a strengthening of the minor character.

The following are good progressions from the Tonic to the Dominant:

Ex. 8.

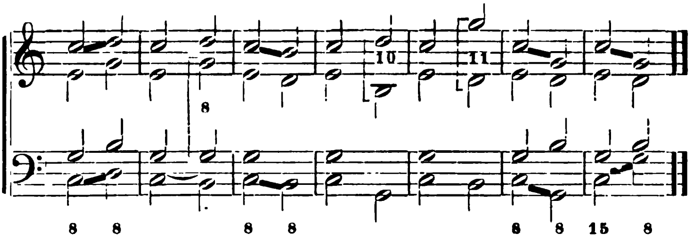


Ex. 9.



The following progressions have faults:

Ex. 10.



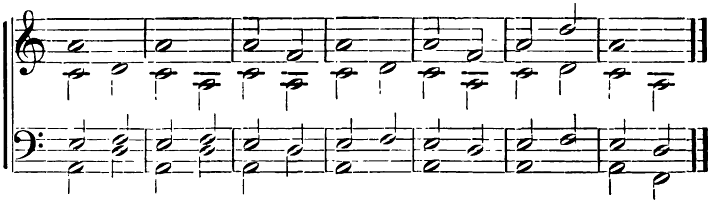
RULE.—Never double the third of the major D or the third of the minor S, because it would be equivalent to doubling the leading tone (half-tone progressions) and subsequently produce consecutive (parallel) octaves. The doubling of the third is allowed in contrary motion in the T, mT, S and mD.

EXERCISE.—Imitation of the progressions in Examples 8 and 9, starting with the other forms of the C-major chord given in Examples 1 and 2; observe all the rules.

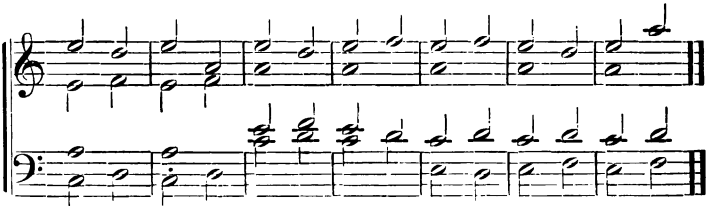
The conditions for *writing in minor* are the same as in major. The mS has one note (in A-minor key, a) in common with the mT, besides the possibility of making a leading tone step (e–f).

The following are good progressions from mT to mS:

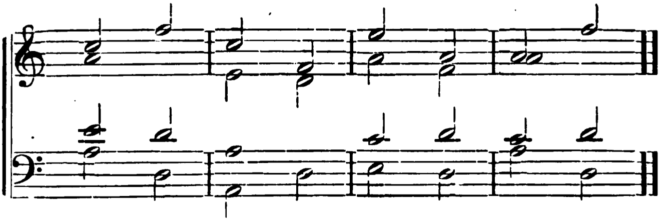
Ex. 11.



Ex. 12.



Ex. 13.



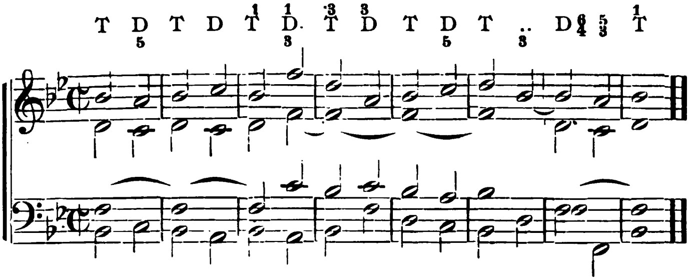
EXERCISE.—Imitation of the progressions in Examples 11–13, starting with a number of other minor chords.

§ 19. THE WORKING OUT OF EXERCISES.—We will now work out an exercise of eight measures, which gives occasion for further remarks. Take the exercise:

𝄵 : T $\underset{5}{\mathrm{D}}$ | T D | $\overset{1}{\mathrm{T}}$ $\overset{1}{\underset{3}{\mathrm{D}}}$ | $\overset{3}{\mathrm{T}}$ $\overset{3}{\mathrm{D}}$ | T $\underset{5}{\mathrm{D}}$ | T $\underset{3}{..}$ | $\mathrm{D}^{6\,5}_{4\,3}$ | $\overset{1}{\mathrm{T}}$

The signs T, D have been explained (T=major tonic, D=over dominant). The numbers 1, 3, 5, written below or above, mean that the particular note (prime, third, fifth) of the chord is to be in the lowest or highest part. The two dots (..) mean repetition of the same chord (the change of position is always allowable and generally recommended). The perpendicular strokes are the bars. 𝄵 means the time signature. No particular key is asked for, yet all the exercises given in this kind of notation are intended to be worked out in all keys, or at least in a great number of them. If we choose for the beginning to have the prime of the chord doubled in the soprano, in the key of B♭ major, our trial will perhaps turn out thus:

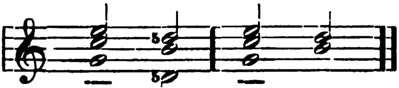
Ex. 14.



Notice that the *middle parts* (alto and tenor) have here the duty of keeping the *outer parts* (soprano and bass) together, that is, their role is to sustain notes as much as possible. In the seventh measure we have the dominant chord with two notes foreign to it, namely, the fourth and sixth, which tend downwards to the third and fifth of the chord, that is the D with *two* suspensions; it is called *dominant six-four chord.*

Suspensions shall be treated of later on, but this chord formation is so common that we use it even in the simplest exercises. The suspensions are disonant tones, which are not allowed to be doubled, so it becomes necessary to double the fundamental.

The student is warned against doubling the fifth in resolving the chord of six-four (D^{6}_{4}) into the plain dominant chord (D^{5}_{8}).

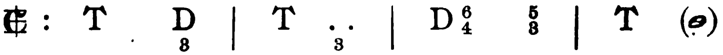


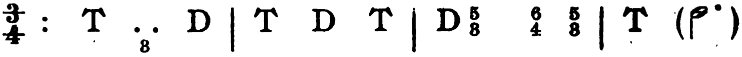
(Bad). (Good).

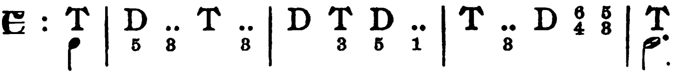
EXERCISES.

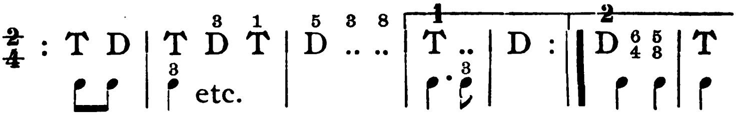
MAJOR.

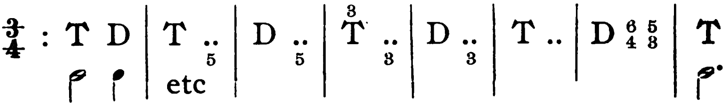
To be worked out in all Major Keys.

(1)


(2)


(3)


(4)


(5)


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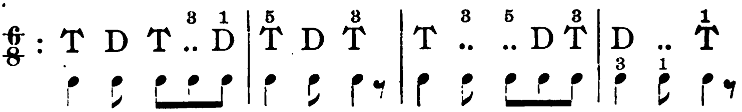


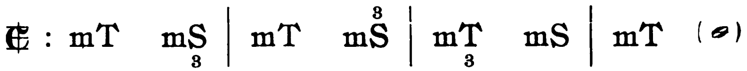
N. B.—The note after the last letter of each exercise indicates the length of the closing chord. Notes under the letters show the rhythm to be adopted.

The pupil should accustom himself to tie sustained notes and to write them as long notes within the same measure. It is good practice, and the work will look neater.

MINOR.

To be worked out in all Minor Keys.

(7)



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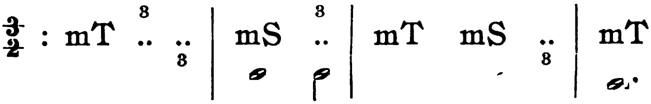

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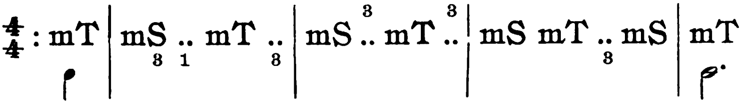
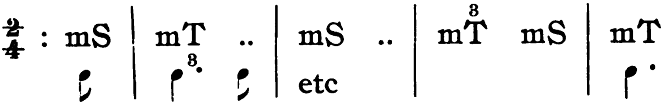
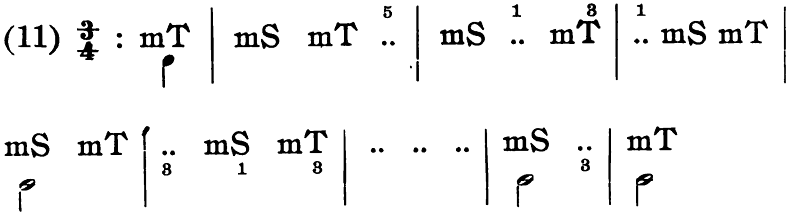

: mT | mS 3 .. 1 mT .. 3 | mS .. 3 mT .. 3 | mS mT .. 3 mS | mT

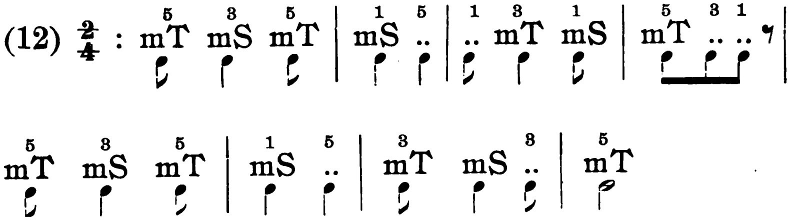
(10)



(11)


: mT | mS mT 5 .. | mS 1 .. mT 3 | 1 .. mS mT |
mS mT | .. 3 mS 1 mT 3 | .. .. .. | mS .. 3 | mT

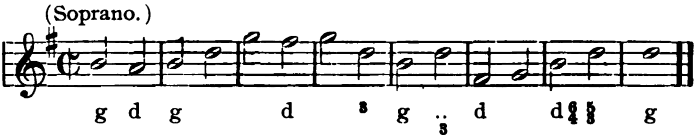
(12)


: mT 5 mS 3 mT 5 | mS 1 .. 5 | .. 1 mT 3 mS 1 | mT 5 .. 3 .. 1 |
mT 5 mS 3 mT 5 | mS 1 .. 5 | mT 3 mS .. 3 | mT 5

§ 20. THE WORKING OUT OF A CANTUS FIRMUS. Besides exercises in which the harmonies are indicated by their tonal functions only, we will have throughout the course a second set of exercises consisting of given melodies for certain voices. Often a given melody (voice) makes impossible the nearest and best connections of chords. In this second set of exercises the harmonies are not called for by T, D, S, etc., but the fundamentals (primes) of the chords are indicated by small letters (c = c-major chord, am = a-minor chord). The pupil should always add the signs of the tonal functions when working out the exercises.

The following example illustrates how to proceed:

Ex. 15.



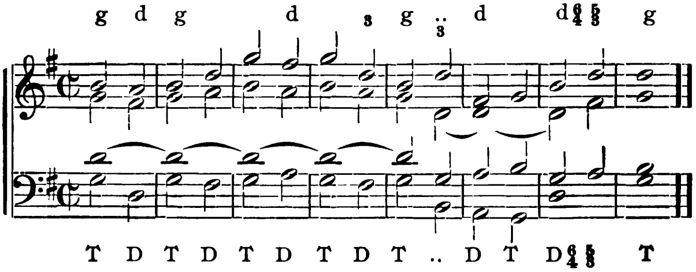
N. B.—The note itself indicates the prime of a major chord where there are figures without the chord letter, or where it is without .. or where every sign is wanting (m = minor). The figures indicate the tone to be put in the bass, but if the bass voice is the given melody, then that particular tone should be put in the soprano. When a figure is over a letter it shows that that member of the chord should be in the soprano part; when a figure is under a letter it means that that note of the chord should be in the bass.

The *cantus firmus* is written in its proper place on the staff; soprano and alto on the upper staff, with note-stems of the former upwards, of the latter downwards. Tenor and bass on the lower staff, note-stems of tenor are written upwards, of bass downwards.

The chord signs are written above the upper staff when the soprano is given; they are written between the two staves when the alto or tenor is given; they are written below the lower staff when the bass is given. The given voice should always be indicated by c. f. (*cantus firmus*) at the beginning of the staff. This is a very necessary precaution in order to avoid making an error by altering the given part when making corrections.

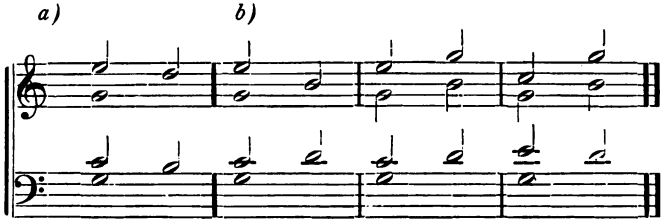
The above example, when worked out and its tonal functions indicated, may turn out similar to this:

Ex. 16.


g d g d 3 g .. 3 d d 6/4 5/3 g
c. f.
T D T D T D T D T .. D T D 6/4 5/3 T

In the seventh measure the D$^{6}_{4}$ acts like a T with the 5 in the bass. In such a case the progression by step of a second from the fourth and sixth of this chord is not unconditionally required.

Ex. 17.

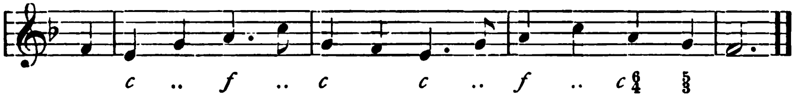


Here at b) we have changed resolutions in place of the normal one at a).

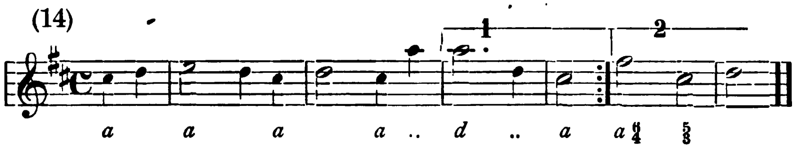
EXERCISES.

MAJOR.

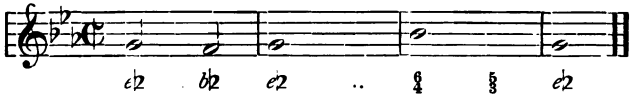
(13) Soprano given.



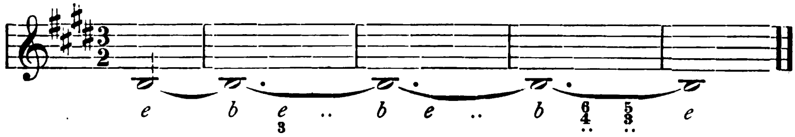
(14)



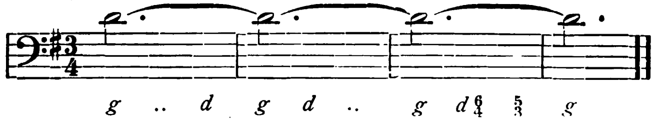
(15) Alto given.



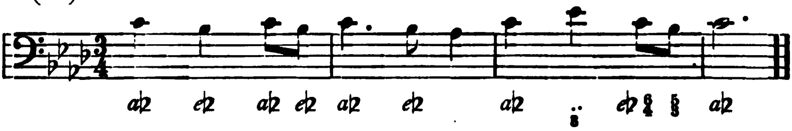
(16)



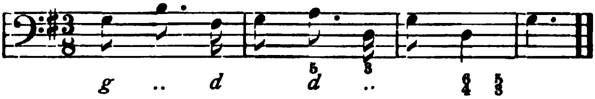
(17) Tenor given.



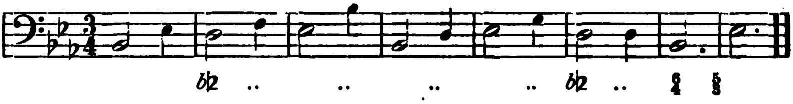
(18)



(19) Bass given.

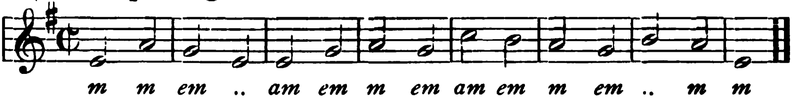


(20)

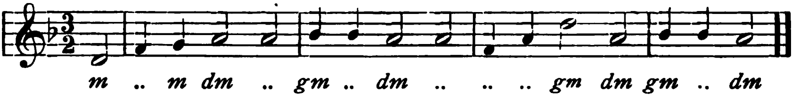


MINOR.

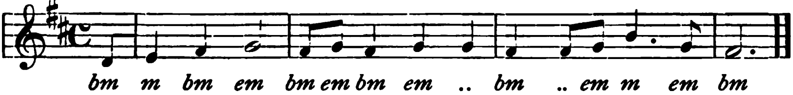
(21) Soprano given.



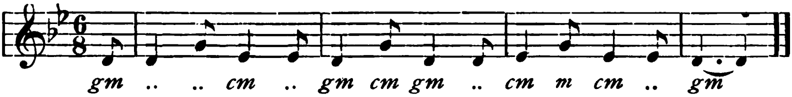
(22)



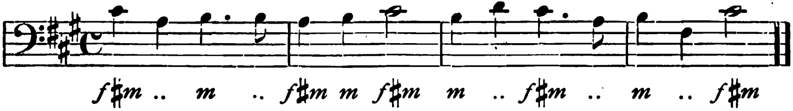
(23) Alto given.



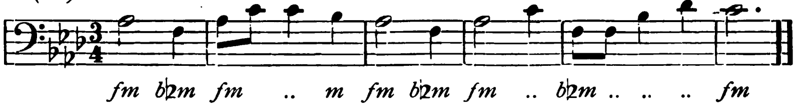
(24)



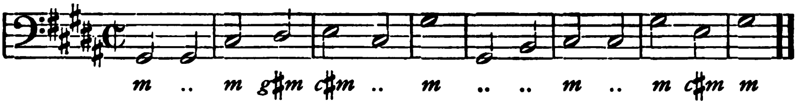
(25) Tenor given.



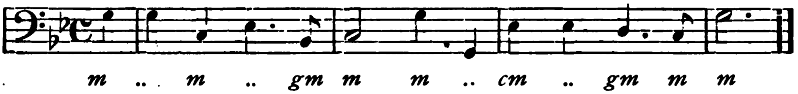
(26)



(27) Bass given.



(28)

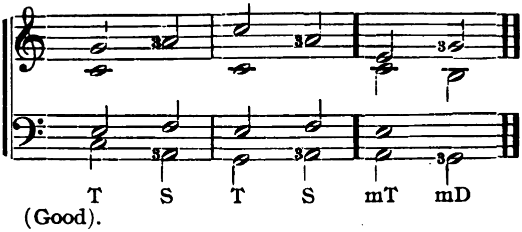


§ 21. **FOURTH STEP.** (From major to major chord, T—S; from minor to minor chord, mT—mD).

Outwardly the connection T—S is the same as the returning Fifth step D—T, and the chord connection mT—mD coincides in exterior as regards the melodious connection with the returning Fifth step mS—mT. The meaning is, however, a very different one, because the subdominant side is the opposite of the dominant side. Going to S means to go below the T into the lower tone-region; going to the mD means to go above the mT into the higher tone-region.

The third of the S, and the third of the mD, can be doubled if they are not arrived at by similar motion.

Ex. 18.



EXERCISES.

MAJOR.

(29) ₵ : $\overset{3}{T}$ S | T S | $\underset{3}{T}$ .. | D T.

(30) $\frac{3}{2}$: T $\underset{3}{S}$ $\underset{5}{T}$ | S $\underset{3}{T}$ S | $\underset{1}{T}$ $\underset{5}{..}$ $\underset{3}{..}$ | D^{6}_{4} $^{5}_{3}$ $\overset{3}{T}$ |

S .. T | $\underset{3}{S}$ $\underset{5}{T}$ $\underset{3}{..}$ | D $\overset{6}{\underset{4}{..}}$ $\overset{5}{\underset{3}{..}}$ | T (𝅝·)

(31) $\frac{2}{4}$: T D | T D | T $\underset{3}{S}$ | $\overset{3}{T}$ S | $\underset{3}{T}$ $\underset{3}{S}$ | T $\underset{3}{..}$ | D$^{6\ 5}_{4\ 3}$ | T
𝅘𝅥. 𝅘𝅥𝅮 | etc | | | | | | 𝅗𝅥

(32) $\frac{3}{4}$: T D | T $\underset{3}{D}$ | $\underset{1}{T}$ S | T $\underset{5}{D}$ | T .. | S .. | $\overset{3}{T}$ D | T
𝅘𝅥 𝅗𝅥 | etc | | | | | | 𝅗𝅥.

MINOR.

(33) ¢ : mT | m$\underset{1}{D}$ $\underset{3}{..}$ | mT .. | mS .. | m$\underset{1}{T}$ m$\underset{1}{D}$ |
𝅗𝅥
m$\underset{3}{T}$ m$\underset{1}{\dot{S}}$ | mT .. | mS $\underset{3}{..}$ | m$\overset{5}{T}$ (𝅗𝅥)

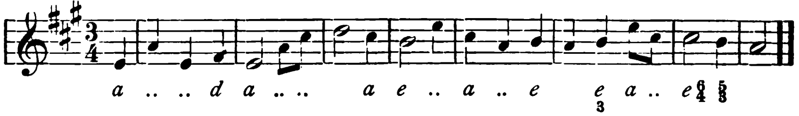
(34) $\frac{4}{4}$: mS .. | mT $\underset{5}{..}$ $\underset{3}{..}$ | mS m$\underset{1}{T}$ m$\underset{5}{D}$ | m$\underset{3}{T}$ m$\underset{3}{S}$ $\underset{1}{..}$ | mT
𝅘𝅥 𝅘𝅥 | 𝅗𝅥 etc | | | 𝅗𝅥

(35) $\frac{3}{4}$: m$\overset{3}{S}$ | m$\overset{5}{T}$ .. | m$\overset{1}{D}$ $\overset{5}{..}$ | m$\overset{5}{T}$ m$\overset{1}{S}$ | m$\overset{5}{\underset{1}{T}}$ $\underset{3}{..}$ |
𝅘𝅥 | 𝅗𝅥
mD $\underset{5}{..}$ | m$\underset{3}{T}$ m$\underset{1}{S}$ | m$\overset{3}{T}$ m$\underset{3}{S}$ | mT (𝅗𝅥)

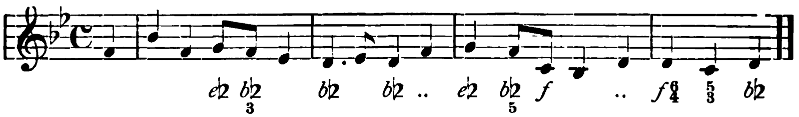
(36) $\frac{2}{4}$: m$\overset{3}{T}$ $\overset{5}{..}$ | m$\overset{3}{S}$ $\overset{1}{..}$ $\overset{3}{..}$ | m$\underset{5}{T}$ m$\overset{3}{D}$ $\overset{5}{..}$ | m$\overset{5}{T}$ m$\overset{3}{S}$ $\overset{5}{..}$ | m$\overset{1}{T}$
𝅘𝅥𝅮. 𝅘𝅥𝅯 | 𝅘𝅥 etc | | | 𝅘𝅥

MAJOR.

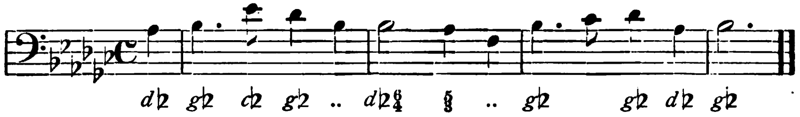
(37) Soprano given.



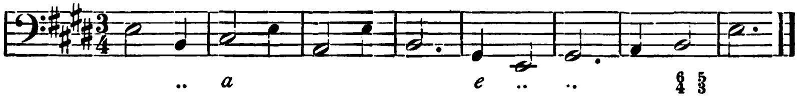
(38) Alto given.



(39) Tenor given.

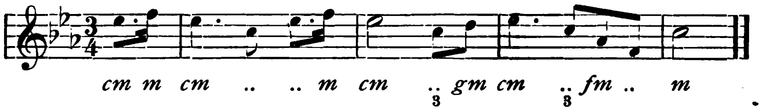


(40) **Bass given.**

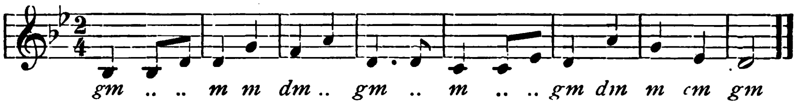


MINOR.

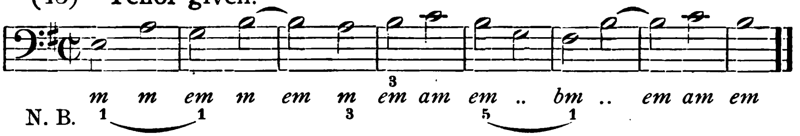
(41) **Soprano given.**



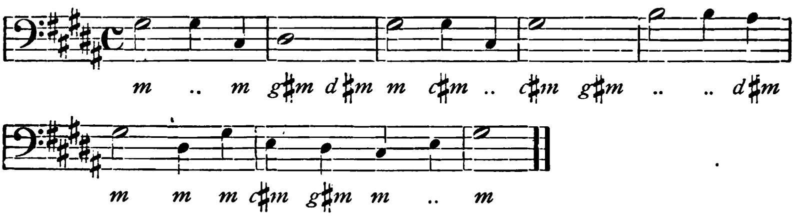
(42) Alto given.



(43) Tenor given.



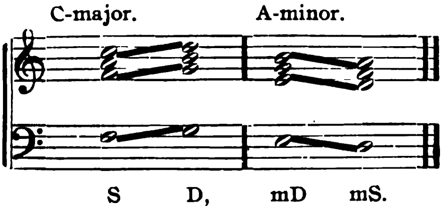
(44) Bass given.



N. B.—In the first measure of Exercise 43 a tie has been used to indicate that the bass note e is to be held out. The e is also a member of the second chord. This method of marking will be found very useful in indicating and explaining in a simple way the most complicated formations of the so-called *Pedal-point* (organ-point).

§ 22. **WHOLE-TONE STEP.** (Major to major chord, S—D; minor to minor, mD—mS). Because these two chords have no tone in common, they bring the risk of consecutive fifths and octaves.

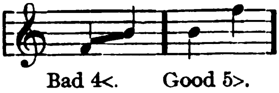
Ex. 19.



The very simple way of avoiding consecutive fifths and octaves is to use contrary motion, but then all the parts can not move by half or whole-tone steps. Employ the leading tone (half-tone) step wherever possible; it will help to lead the other parts into their proper paths.

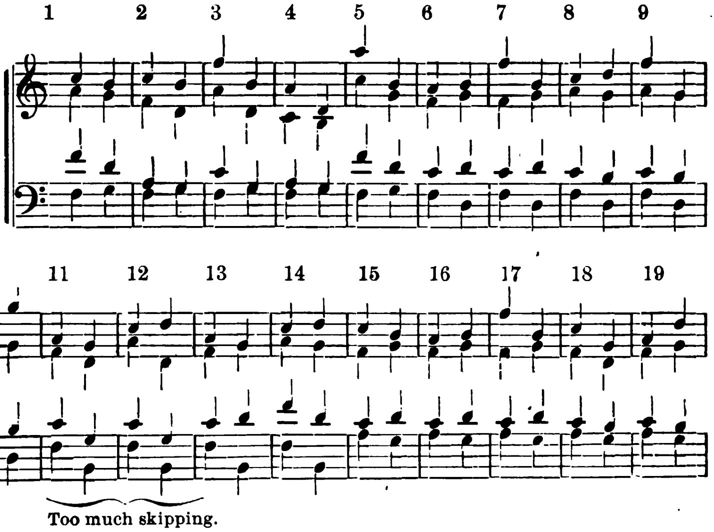
Another difficulty to be met in this chord connection is the *augmented fourth*, or *tritone* (three whole tones).

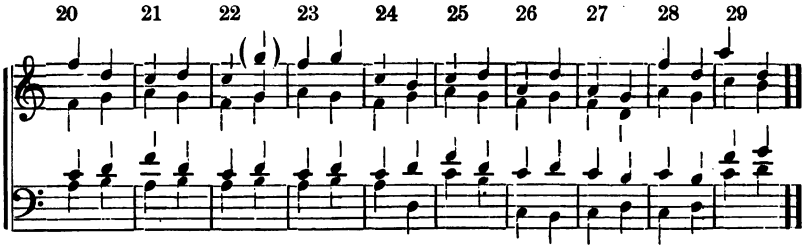
This skip occurs in going from S^1, to D^3, or mS^3 to mD^5. If written as a *diminished fifth* it is good. Augmented intervals are difficult to sing when the harmonies change, and for this reason are to be avoided. When a chord possessing these notes is sustained this progression is allowed, but as we use no such chords for the present, augmented intervals are forbidden without any exception.



EXAMPLES IN MAJOR.

Ex. 22.

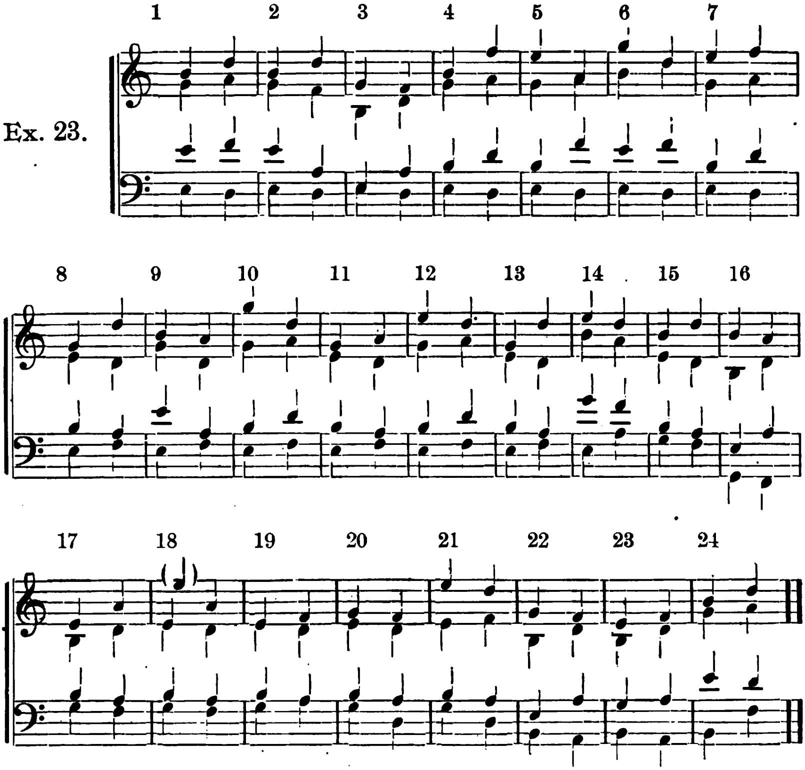




At Nos. 6–10 in the preceding example the bass part skips to the fifth of the dominant, but in this chord connection it must often be permitted for want of better ways. Besides, the D *in any position* after the S will define (indicate) the key accurately. The six-four chord (D$^6_4$) will be found the natural connecting link between the two dominants.

EXAMPLES IN MINOR.

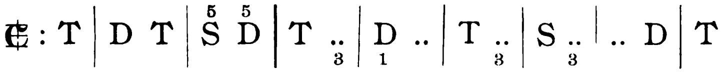
Ex. 23.



In order to accustom the student to reading score the next exercises ought to be worked out on *four staves;* every part is to be written on a separate staff. All notes above the middle line should have their stems turned downwards, all lying below turned upwards; for notes on the middle line either way is good.

EXERCISES.

MAJOR.

(45)


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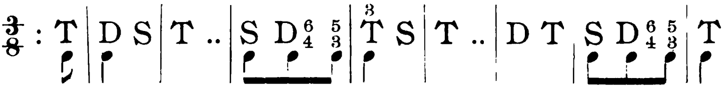
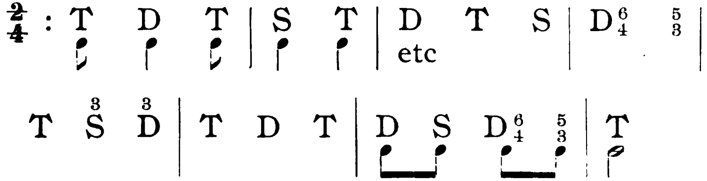
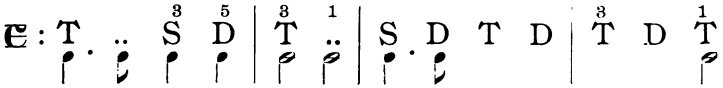


3/8 : T | D S | T .. | S D 6 4 5 3 | T S | T .. | D T | S D 6 4 5 3 | T
3

(47)


2/4 : T D T | S T | D T S | D 6 4 5 3 |
etc
T S D | T D T | D S D 6 4 5 3 | T
3 3

(48)


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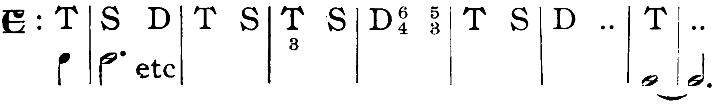
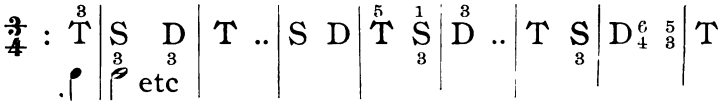
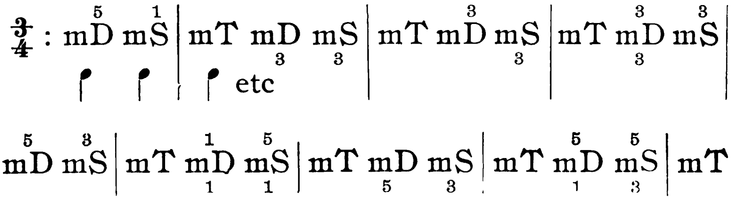


(50)


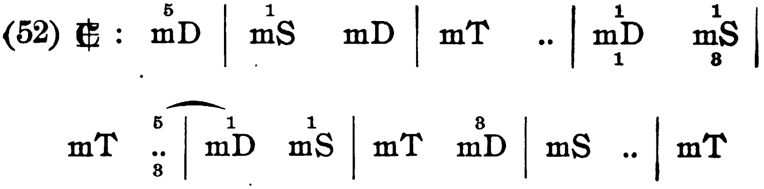
3/4 : T | S D | T .. | S D | T S | D .. | T S | D 6 4 5 3 | T
3 5 1 3
3 3 3 3
etc

MINOR.

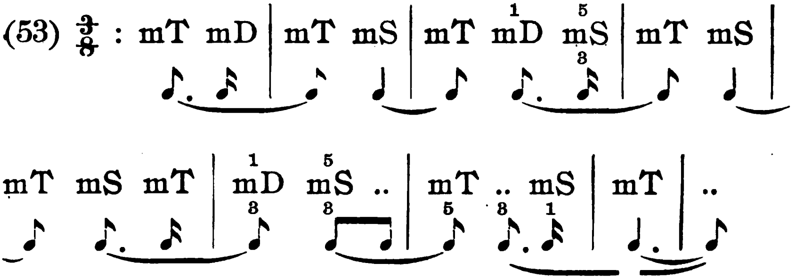
(51)


3/4 : mD mS | mT mD mS | mT mD mS | mT mD mS |
5 1 3 3 3
3 3 3 3
etc
mT mD mS | mT mD mS | mT mD mS | mT mD mS | mT
5 3 1 5 5 5
1 1 5 3 1 3

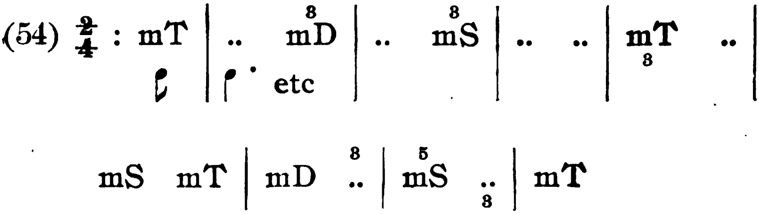
(52)


¢ : mD | mS mD | mT .. | mD mS |
mT .. | mD mS | mT mD | mS .. | mT

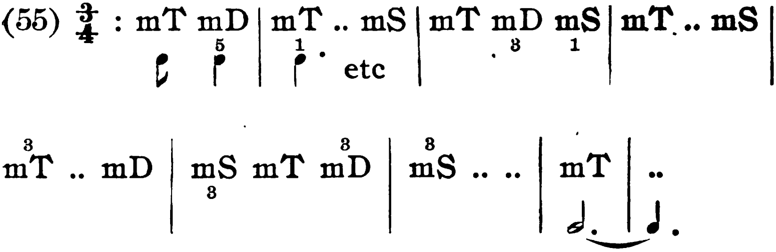
(53)


3/8 : mT mD | mT mS | mT mD mS | mT mS |
mT mS mT | mD mS .. | mT .. mS | mT | ..

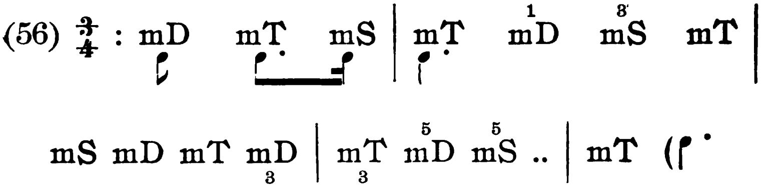
(54)


2/4 : mT | .. mD | .. mS | .. .. | mT .. |
etc
mS mT | mD .. | mS .. | mT

(55)

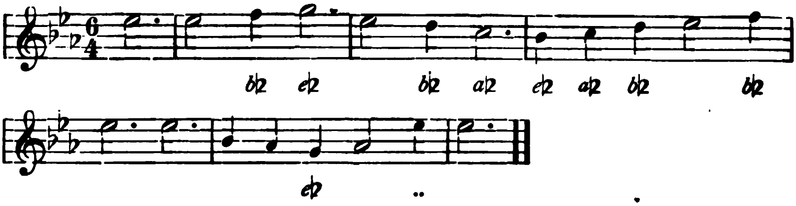

3/4 : mT mD | mT .. mS | mT mD mS | mT .. mS |
etc
mT .. mD | mS mT mD | mS .. .. | mT | ..

(56)

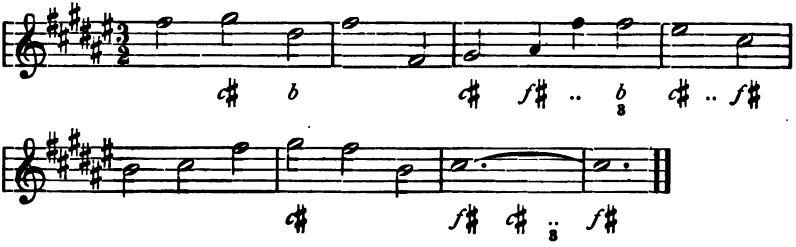

3/4 : mD mT mS | mT mD mS mT |
mS mD mT mD | mT mD mS .. | mT

MAJOR.

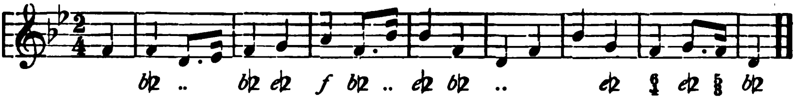
(57) Soprano given.



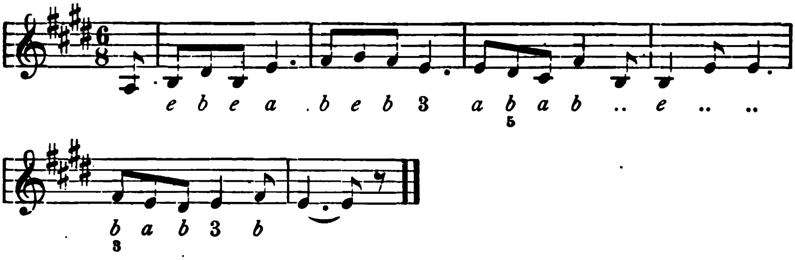
(58)



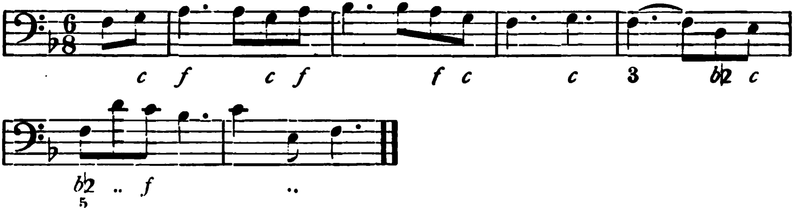
(59) Alto given.



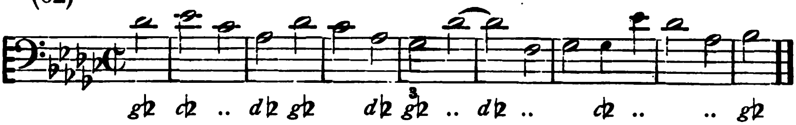
(60)



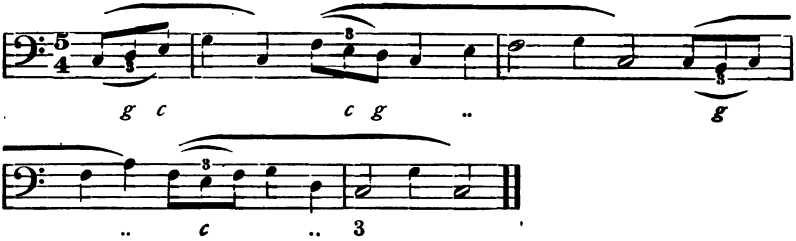
(61) Tenor given.



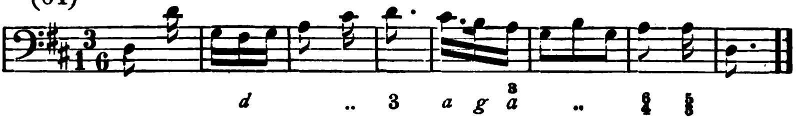
(62)



(63) Bass given.

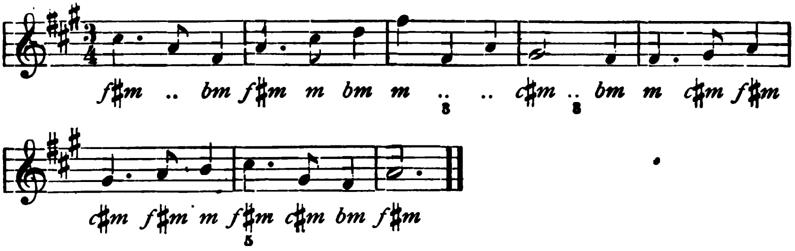


(64)

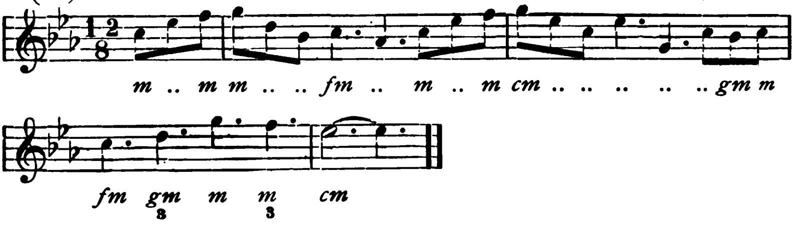


MINOR.

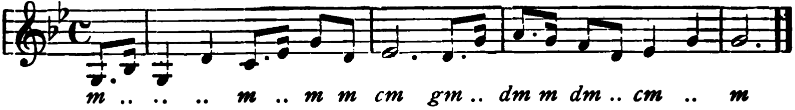
(65) Soprano given.



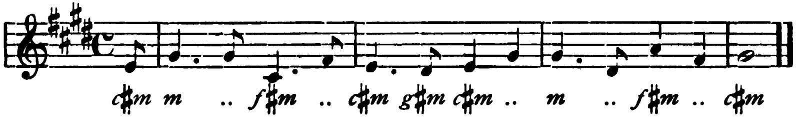
(66)



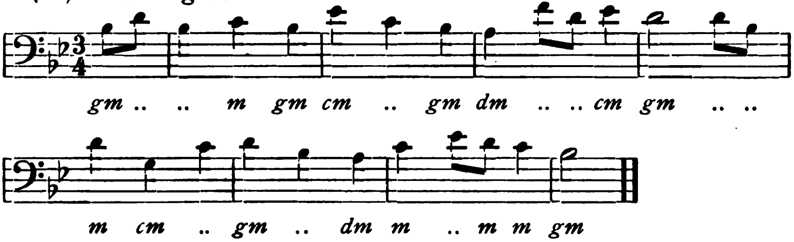
(67) Alto given.



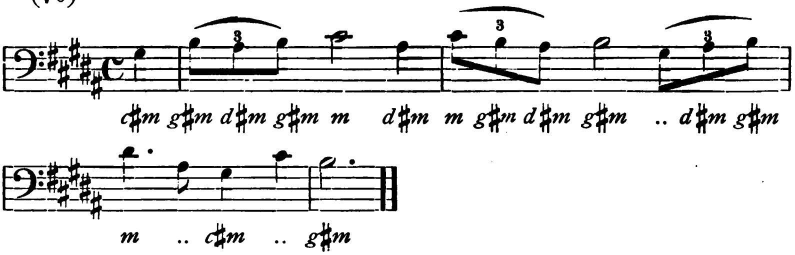
(68)



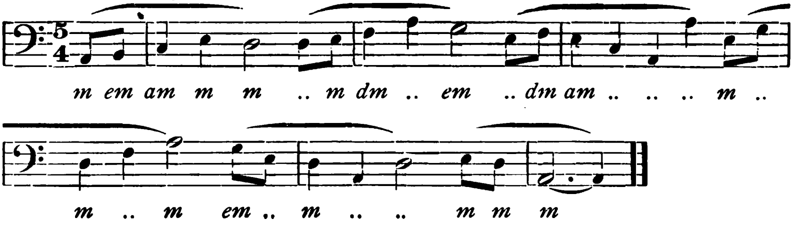
(69) Tenor given.


gm .. .. m gm cm .. gm dm .. .. cm gm .. ..
m cm .. gm .. dm m .. m m gm

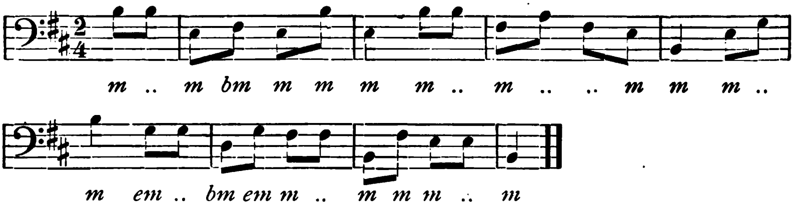
(70)



(71) Bass given.

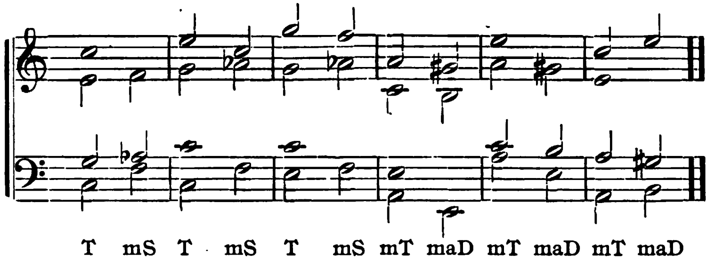

m em am m m .. m dm .. em .. dm am .. .. m ..
m .. m em .. m .. .. m m m

(72)


m .. m bm m m m m .. m .. .. m m m ..
m em .. bm em m .. m m m .. m

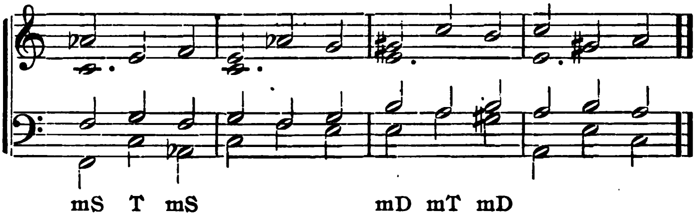
§ 23. **FOURTH STEP.** (Major to minor, T—mS; minor to major, mT—maD). There are no particular difficulties to be met in this chord connection; instead of one leading tone (half-tone) step there are two possible.

Ex. 24.

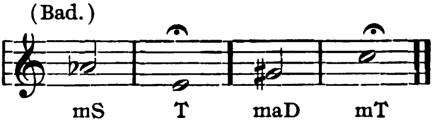


In progressing from the 3 of one to the 3 of the other chord avoid the augmented fifth (5<). Its inversion as diminished fourth (4>) is good, when a turning half-step follows.

Ex. 25.



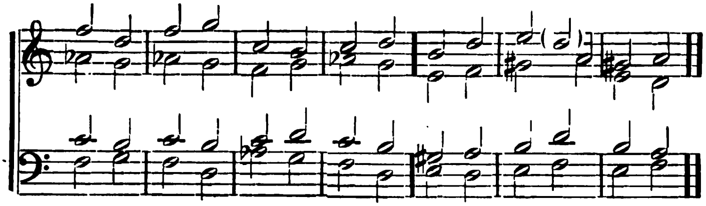
When the turning half-step does not follow then the diminished interval is not good, consequently the 4> must not be used in closing an exercise (or piece).



The six-four chord of the major dominant of the minor key must have a "minor" sixth (6>), the tone corresponding to the third of the mT. It is shown in the figuring by a > attached to the 6, which means that the sixth has to be lowered a half-tone, D$^{6>}_{4}$. e$^{6>}_{4}$ = e a c, e$^{6}_{4}$ = e a c♯. The D$^{6>}_{4}$ can act like a mT and have the
5
same changed resolutions as the D$^{6}_{4}$ in Ex. 17 on page 25.

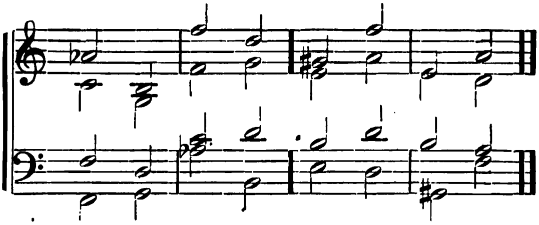
§ 24. **WHOLE-TONE STEP.** (minor to major, mS—D; major to minor, maD—mS). In connecting these chords we find two half-tone steps, otherwise the same difficulties (consecutive octaves and fifths) as in the whole-tone step where both chords are of the same mode (§ 22).

Ex. 26.



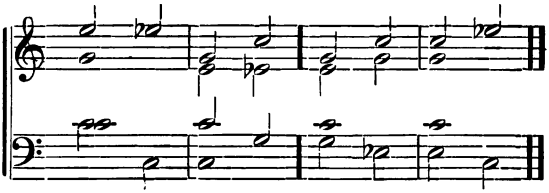
But besides the tritone step we find another obstacle, namely, an augmented second (2<); written as a diminished seventh (7>) it is good.

Ex. 27.



§ 25. **CHANGE OF MODE (OF CHORDS).** (S—mS, mD—maD). In this connection the chords have two tones in common, the other tones are a chromatic half-tone step apart. It is obligatory that the chromatically altered tones are kept in the same part, otherwise the ear is not able to perceive the change of harmony, and made to believe that the same harmony is repeated, but the chromatic tone only out of tune. This disagreeable effect is known under the name of *false relation* (*cross-relation*).

Ex. 28.



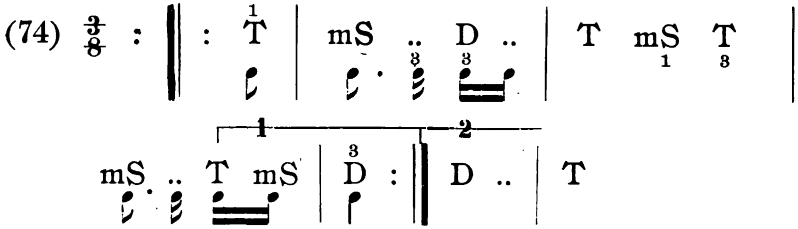
The actual effect of bad relation is felt only in this change of mode of chords, and not in other chord connections.

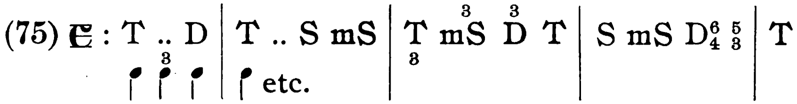
EXERCISES.

MAJOR.

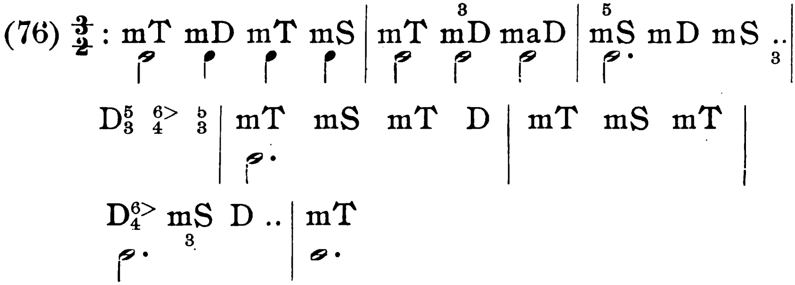
(73) $\frac{2}{4}$: $\overset{5}{T}$ | $\overset{3}{S}$ mS | $\overset{5}{T}$ .. | D .. | $\underset{1}{mS}$ $\underset{5}{D}$ | $\underset{3}{T}$ .. |

$\overset{5}{D}$ $\overset{3}{T}$ | $\underset{1}{mS}$ $\underset{1}{D}$ | T

(74)


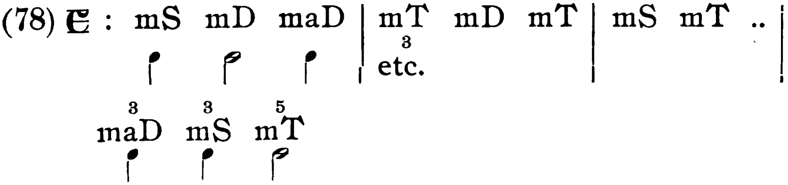
(75)


MINOR.

(76)

$\frac{3}{2}$: mT mD mT mS
mT $\overset{3}{mD}$ maD
$\overset{5}{mS}$ mD mS ..
3
D^{5}_{3} $^{6>}_{4}$ $^{5}_{3}$
mT mS mT D
mT mS mT
$D^{6>}_{4}$ $\underset{3}{mS}$ D ..
mT

(77) ₵ : mT $\underset{3}{mS}$ | $\underset{1}{D}$ .. | $\underset{3}{mS}$ mT | mD maD | $\overset{5}{mS}$ $\overset{3}{D}$ |

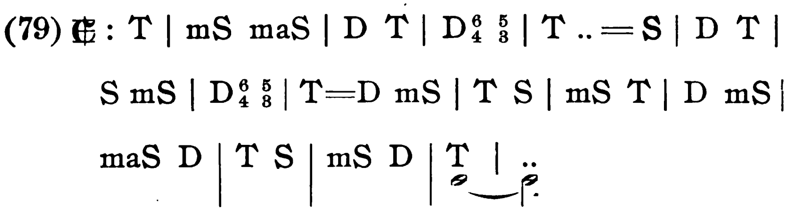
mS .. | $D^{6>}_{4}$ $^{5}_{3}$ | mT

(78)


§ 26. **MODULATION** is a change of key. It occurs whenever a new chord is made the central point of the tonal system. We break the bounds of the key, when we change the functions of harmonies, that is, when we treat any one of them as having a new meaning. In the following exercises a modulation (change of meaning of one function to another) takes place wherever the sign of equality (=) is.

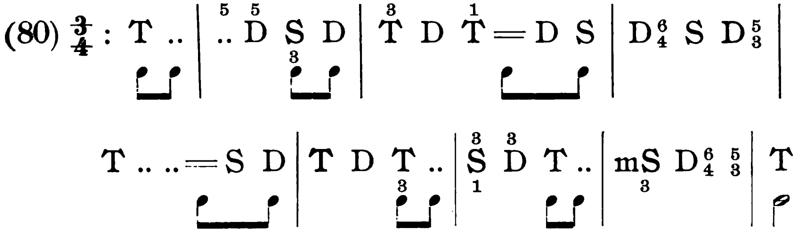
The author's Revolving Chart of Harmony, No. 1, will be a great help to the student in learning and the teacher in illustrating Harmony, especially Modulation. It shows the different positions (functions) any chord can have in the various keys, because by merely turning the disc to any key desired the chords belonging to it can be seen at a glance, and the changes of functions be observed.

EXERCISES. (Modulating).



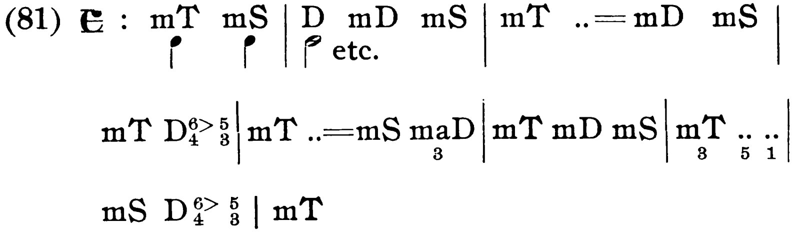
(79) ₵ : T | mS maS | D T | $D^{6}_{4}\,{}^{5}_{3}$ | T .. = S | D T |
S mS | $D^{6}_{4}\,{}^{5}_{3}$ | T=D mS | T S | mS T | D mS |
maS D | T S | mS D | T | ..

(*Modulation to the key of the D and back*).



(80) $\frac{3}{4}$: T .. | $\overset{5}{..}\ \overset{5}{D}\ \underset{3}{S}\ D$ | $\overset{3}{T}\ D\ \overset{1}{T}$ = D S | D^{6}_{4} S D^{5}_{3} |
T .. .. = S D | T D $\underset{3}{T}$ .. | $\overset{3}{\underset{1}{S}}\ \overset{3}{D}$ T .. | $\underset{3}{mS}$ $D^{6}_{4}\,{}^{5}_{3}$ | T

(*Modulation to the key of the S and back*).



(81) ₵ : mT mS | D mD mS etc. | mT .. = mD mS |
mT $D^{6>}_{4}\,{}^{5}_{3}$ | mT .. = mS $\underset{3}{maD}$ | mT mD mS | $\underset{3}{mT}\ \underset{5}{..}\ \underset{1}{..}$ |
mS $D^{6>}_{4}\,{}^{5}_{3}$ | mT

(*Modulation to the key of the mS and back*).

(82) $\frac{3}{2}$: $mT \;..\; mD \mid mT \;\underset{3}{mS}\; \underset{1}{mT} = mS \mid D \;mT\; mS \mid$

$\underset{ø}{mT} = mD \;..\; \mid mS \;\underset{1}{mT}\; mS \mid mT \;mD\; mT \mid$

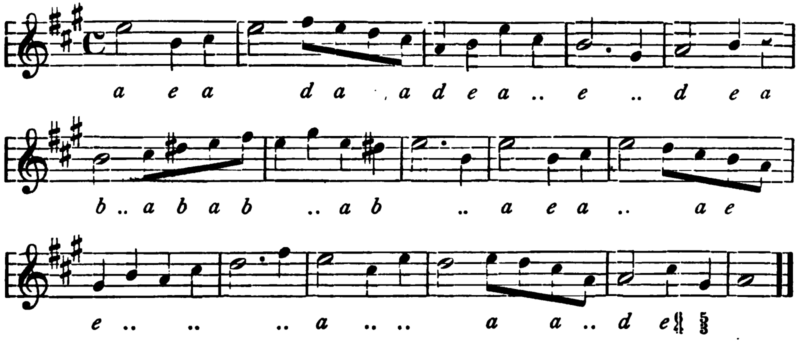
$mS \;D^{6>}_{4}\; {}^{5}_{3} \mid mT$ (ø·

(*Modulation to the key of the mD and back*).

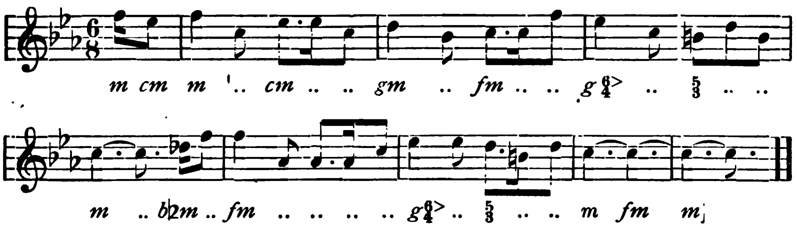
In the following exercises the pupil is to find the modulations and indicate the changes of functions taking place.

EXERCISES.

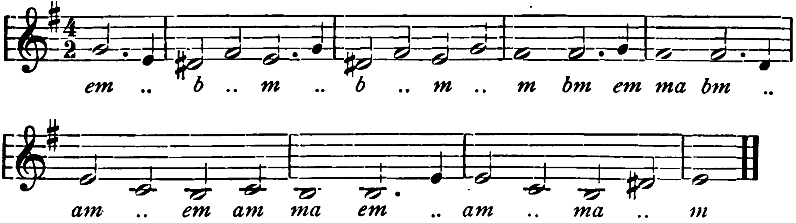
(83) Soprano given.


a e a d a a d e a .. e .. d e a
b .. a b a b .. a b .. a e a .. a e
e .. .. .. a .. .. a a .. d e $^{6}_{4}$ $^{5}_{3}$

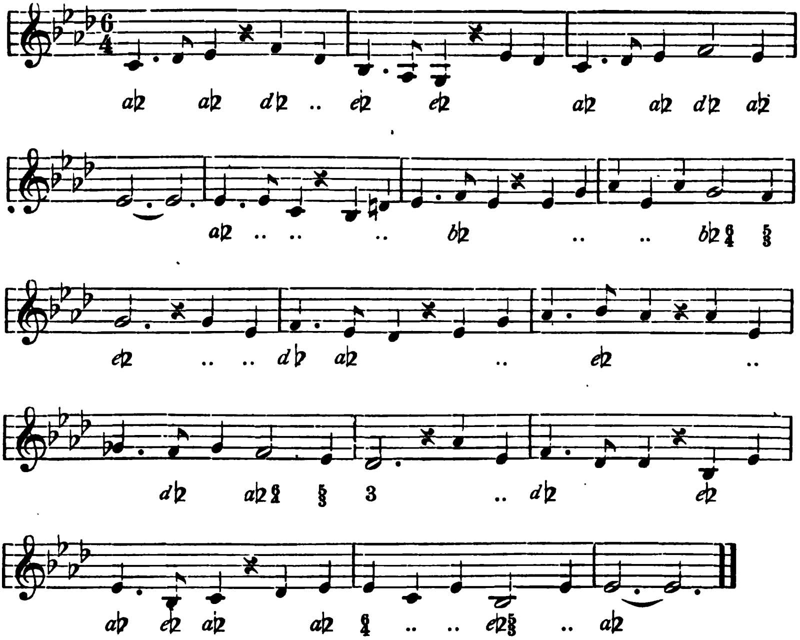
(84)


m cm m .. cm .. .. gm .. fm .. .. g $^{6>}_{4}$ .. $^{5}_{3}$ .. ..
m .. b♮m .. fm .. .. g $^{6>}_{4}$ .. $^{5}_{3}$ .. .. m fm m

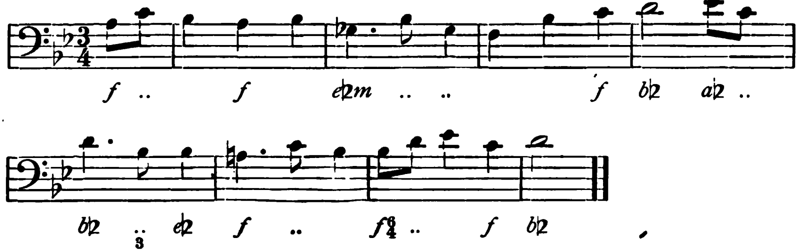
(85) Alto given.


em .. b .. m .. b .. m .. m bm em ma bm ..
am .. em am ma em .. am .. ma .. m

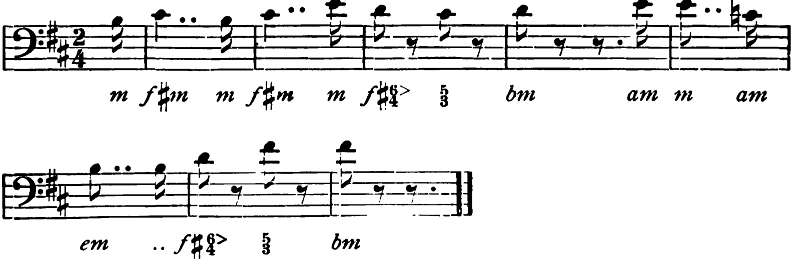
(86)


a♭ a♭ d♭ .. e♭ e♭ a♭ a♭ d♭ a♭
a♭ .. .. .. b♭ .. .. b♭ 6 4 5 3
e♭ .. .. d♭ a♭ .. e♭ ..
d♭ a♭ 6 4 5 3 3 .. d♭ e♭
a♭ e♭ a♭ a♭ 6 4 .. .. e♭ 5 3 .. a♭

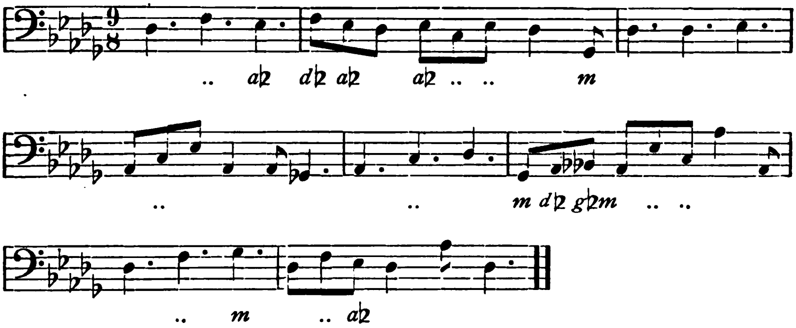
(87) Tenor given.



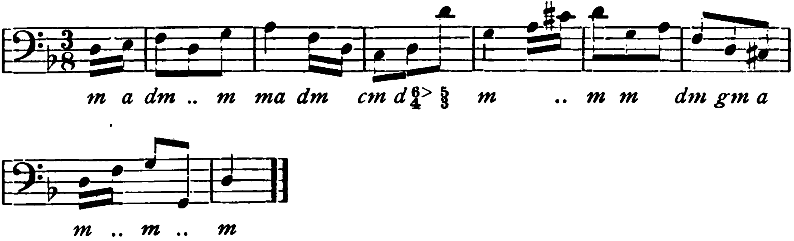
(88)



(89) Bass given.

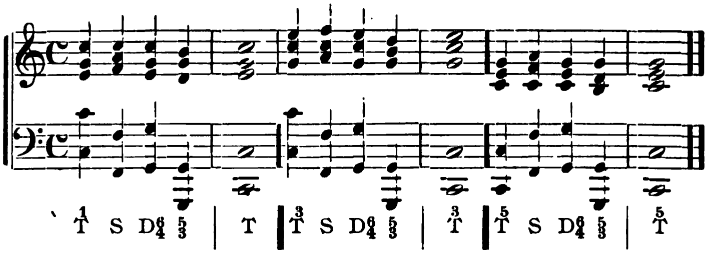


(90)



§ 27. **PRACTICAL WORK ON THE PIANO.**—Cadences are no musical pieces, nevertheless they are the types of harmonic motion, and consequently very important. The student ought to play all major and minor cadences on the piano according to the following pattern:

Ex. 29.


1 T S D6/4 5/3 | T | 3 T S D6/4 5/3 | 3 T | 5 T S D6/4 5/3 | 5 T

In the minor key play:

$\overset{1}{\mathrm{mT}}\ \mathrm{mS}\ \mathrm{D}^{6>5}_{4\ \ 3} \mid \overset{1}{\mathrm{mT}} \,\|\, \overset{3}{\mathrm{mT}}\ \mathrm{mS}\ \mathrm{D}^{6>5}_{4\ \ 3} \mid \overset{3}{\mathrm{mT}} \,\|\, \overset{5}{\mathrm{mT}}\ \mathrm{mS}\ \mathrm{D}^{6>5}_{4\ \ 3} \mid \overset{5}{\mathrm{mT}} \,\|$

It would be an excellent practice now, to review all the exercises by working out and playing them on the piano *at sight.* It ought to be tried, because the pupil's harmonic knowledge and ability should be at his finger's ends.

CHAPTER III.

THE PRINCIPAL DISCORDS.

§ 28. THE PRINCIPAL DISCORDS. (D^7, S^6, mS^6, mD^7). Before we will acquaint the student with other concords of the key, we will explain the almost indispensable principal discords of the key. They are the dominants with additional tones, which help to mark them very pointedly as S or D. These added tones are tones borrowed from the other dominant. The Major Over-dominant adds the prime of the subdominant (in C-major, g b d | f; in A-minor, e g♯ b | d). It is called *dominant seventh chord* (D^7).

$$\underbrace{f\;[a\;\mathrlap{\overbrace{}^{T}}c}_{S}\;e]\;\underbrace{g\;b\;d}_{D}\qquad\qquad\underbrace{d\;[f\;\mathrlap{\overbrace{}^{mT}}a}_{mS}\;c]\;\underbrace{e\;g\sharp\;b}_{maD}$$

The Major Subdominant adds the fifth of the dominant (in C-major, f a c | d).

$$\underbrace{f\;a\;\mathrlap{\overbrace{}^{T}}c}_{S}\;[e\;\underbrace{g\;b]\;d}_{D}$$

It is called *subdominant sixth chord* (S^6).

The Minor Subdominant adds the fifth of the *minor* or *major* overdominant (in A-minor d f a | b; in C-major f a♭ c | d).

$$\underbrace{d\;f\;\mathrlap{\overbrace{}^{mT}}a}_{mS}\;[c\;\underbrace{e\;g]\;b}_{mD}\qquad\qquad\underbrace{f\;a\flat\;\mathrlap{\overbrace{}^{T}}c}_{mS}\;[e\;\underbrace{g\;b]\;d}_{D}$$

It is called *minor subdominant sixth chord* (mS^6).

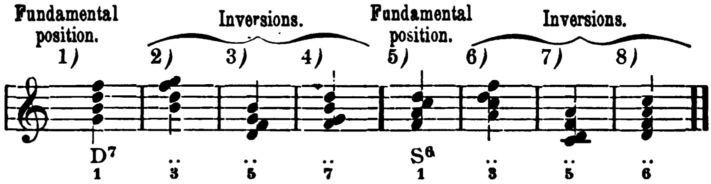
The Minor Over-dominant adds the prime of the minor subdominant (in A-minor, e g b | d).

$$\underbrace{d\;[f\;\mathrlap{\overbrace{}^{mT}}a}_{mS}\;c]\;\underbrace{e\;g\;b}_{mD}$$

It is called *minor dominant seventh chord* (mD^7).

Adding a tone of one dominant to the dominant lying on the other side circumscribes the key in the same way as does the succession of two dominants—it points to their tonic.

CHORDS OF THE D^7 AND S^6 AND THEIR INVERSIONS.

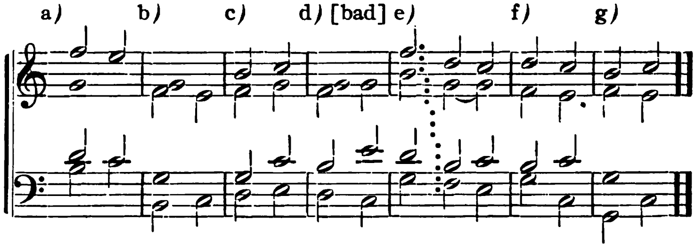


The old thorough-bass figuring would count the intervals of all chord formations from the lowest tone upwards and call No. 1 seventh chord (7), No. 2 chord of five-six $\binom{6}{5}$, No. 3 chord of three-four $\binom{4}{3}$, No. 4 chord of the second (2), No. 5 chord of the five-six $\binom{6}{5}$, No. 6 chord of the three four $\binom{4}{3}$, No. 7 chord of the second (2), and No. 8 chord of the seventh (7). We do not need nor use all these terms.

EXERCISE.—Write the principal discords (D^7, S^6, mS^6 and mD^7) of all major and minor keys.

§ 29. THE RESOLUTIONS OF THE DOMINANT SEVENTH CHORD.

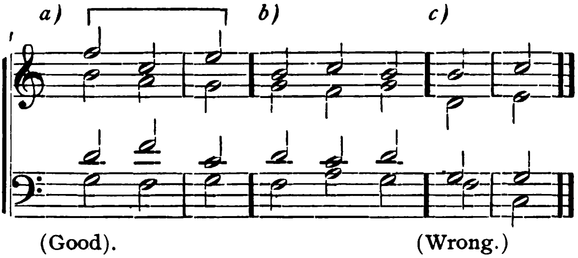
Ex. 30.



The seventh always moves by step of a second. It generally moves downwards and makes the leading tone (half) step, Ex. 30, a and b. Tones forming the interval of a second strive away from each other [b]. Merging the one tone into the other [d] is of good effect only in case it is produced by instruments (and voices with instruments) of strongly contrasting tone-colors. The pupil should avoid this resolution. The upward motion of the seventh [c] is allowed only when the downward motion would cause doubling of the third. Where the same harmony is repeated, the seventh may change places with some other tone; in Ex. 30, e, the rule for progression is merely transferred to the bass. At b and g the fifth in the chord of the seventh has been omitted. We know that the fifth of any chord can be omitted; here it was done to have the tonic chord after it complete [with fifth, g]. If we have the D^7 complete [f] then the subsequent tonic will be incomplete [without fifth]. If we think the *g c* given for the tenor, and the 3 called for as bass note in T, then a downward motion of the seventh would create a faulty third-doubling, because doubling both prime and third in four-part writing is considered very harsh. Third-doubling is good only when the chord is complete; it is better to treble the fundamental note.

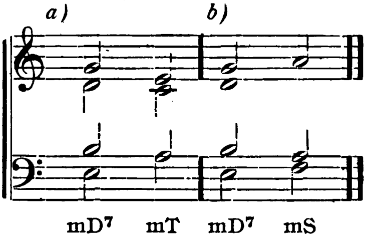
It is impossible to have the seventh as bass note for the second last chord, because the prime of the tonic is required for the bass, whereas the seventh has to make the half-tone step to the third, Ex. 31, c. When the D⁷ is not followed by the tonic, but by the S, the seventh need not progress by step of second, although this will usually happen afterwards, Ex. 31, a, b.

Ex. 31.



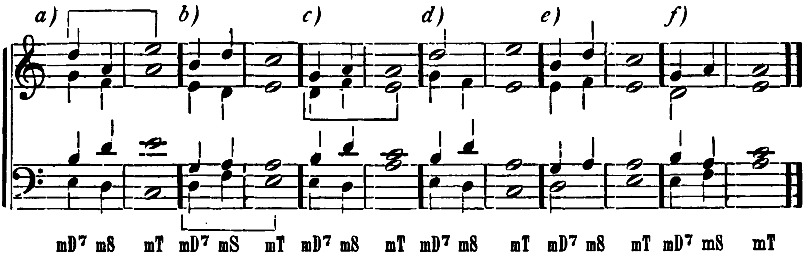
The mD⁷ progresses like the maD⁷, Ex. 32, a. But when the seventh becomes part of the mS, it, of course, need not move, Ex. 32, b.

Ex. 32.



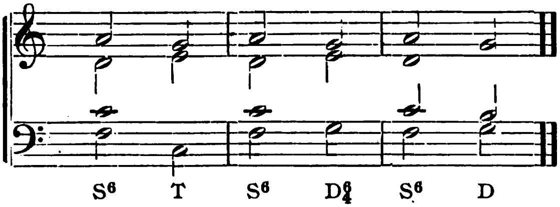
The resolution of the mD⁷ may be disguised by means of intermediate tones.

Ex. 33.



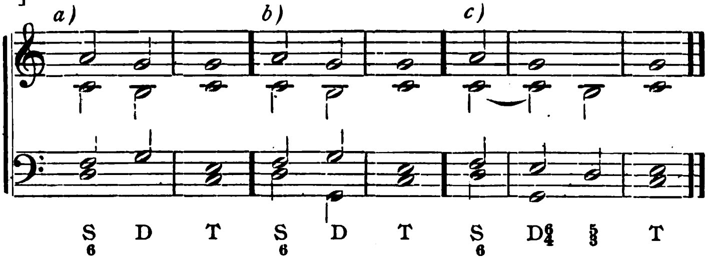
§ 30. THE RESOLUTIONS OF THE SUBDOMINANT SIXTH-CHORD.—In this chord the sixth, when sounded together with the fifth, must strive towards the seventh, or force the fifth to the fourth, because tones of a second strive away from each other (no matter whether in the same octave position or not).

Ex. 33.



When in the C-major cadence the 6 (d) of the S^6 chord is in the bass, and the D follows, the d can be sustained [Ex. 34, a], although it is not necessary. The d can proceed first to g of the D and then to c of the T [Ex. 34, b], and even the D^6_4 may be also inserted [Ex. 34, c].

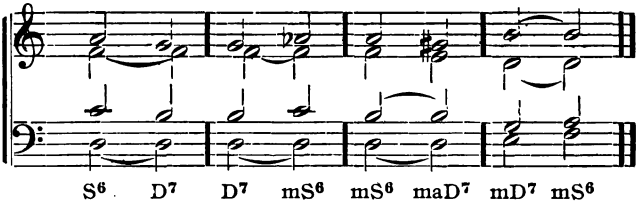
Ex. 34.



In the last two cases [b c] the S^6, with the sixth in the bass, *acts* like a D^7 of the D, with the prime in the bass. Why the chords of the sixth readily take just the dissonant tone for the bass will be quite clear to us later on, when we will have to consider *dominants of the dominants* and the possibilities of chromatic alterations of chords. As soon as the 1 is raised the S^6 becomes D^7 of the D, likewise the mS^6 as soon as the 1 and 3 are raised; but the sixth has become the prime (fundamental).

The use of added (dissonant) tones with the dominant chords lessens the danger of consecutive fifths and octaves considerably, as it gives to chords which otherwise have no tone in common, two such tones:

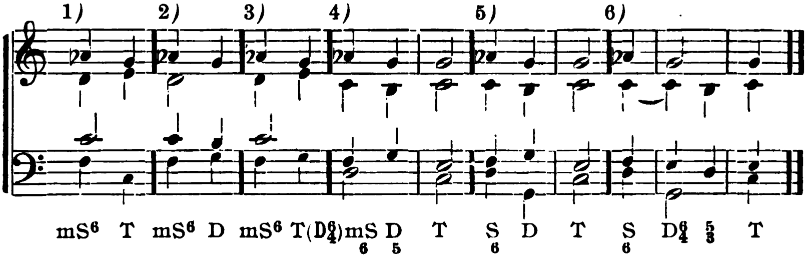
Ex. 35.



As regards the figuring of the exercises, we must explain that the 6 or 7 *beside* the chord-sign (T, D, etc., or chord-letter c, g, etc., or ..) simply asks for the chord of the sixth or seventh. Numbers *above* or *below* the signs tell what particular tone is to go in the *highest* or *lowest* part.

The *minor* subdominant sixth-chord (mS^6) is subject to the same treatment as the major subdominant sixth-chord (S^6).

Ex. 36.



§ 31. FIGURATION.—We will take another step forward in the next exercises by practicing the simplest forms of *figuration* or ornamentation, that is, we let one part move in shorter notes (half the value) than the others. We will make use of only the following three varieties:

(A) *Passing tones,* which fill in the gaps between an interval of a third; for example, if the unfigured part had e and g in succession, then f (or f♯) would be the passing tone.

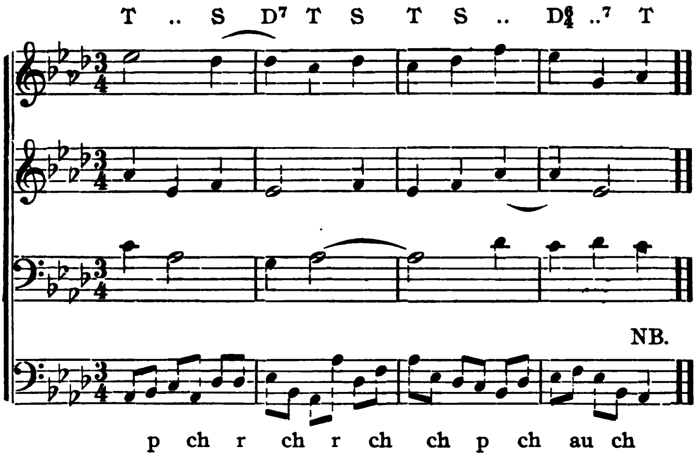
(B) *Auxiliary tones.* The insertion of a neighbor-tone (a whole or half-step) above or below where the unfigured part uses the same tone twice in succession (c *b* c, c *b*♭ c, c *d* c, c *d*♭ c).

(C) *Chord tones.* In cases where neither of the above can be applied, a second note of the chord may be inserted. For example, in the figuration of the C-major chord g might be used between e and c^1. Occasionally a leap to the octave might be made, or even the same note repeated.

Figuration increases the danger of faulty parallel progressions, because the inserted tone may produce consecutives which were not in the unfigured writing. Avoid in figuration of the bass part skipping from the fifth of one chord to the fifth of another.

In the following illustration for figuration exercises we mark the inserted tones: p = passing tone, au = auxiliary tone, ch = chord tone, r = repeated chord tone. The bass is the part figurated.

Ex. 37.



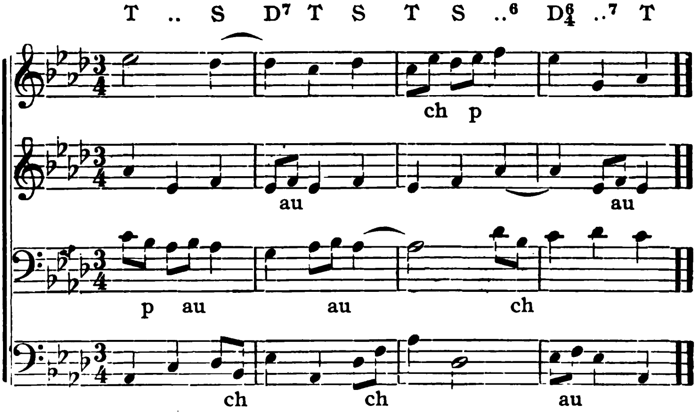
NB.—The closing chord is not figurated.

In figuration not only may the 7 be added to a D without being called for, but also, when mentioned in the figuring, it enters soon enough, when introduced by the inserted tone. The same holds good of the 6 of the S or mS. These tones may be used in the figuration where not called for, and, where they are called for, may be missing at first and be added afterwards as figuration tones. When by .. a chord with an added dissonant tone is required to be repeated, that tone may be dropped, for it is not necessary to use it again.

A pleasing variety of this exercise is that of not keeping the figuration in one part, but of changing it to any part possible of having passing and auxiliary tones, using chord tones only when necessary.

Divided figuration.

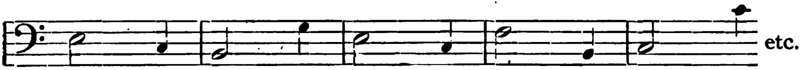
Ex. 38.



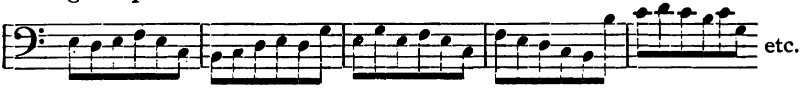
§ 32. **MODULATION** (CONTINUED). In the following exercises a few more ways of modulation have been employed, namely, the change of meaning of a chord by the addition of the dissonant tone essential to its new meaning. In Nos. 91 and 92 the tonic changes to subdominant on account of the sixth characteristic for the subdominant being added. In No. 93 the T is made a D^7 by the addition of the 7. In No. 95 the mT is stamped as a mS, because the 6 is added to it. Another way of modulating is to chromatically alter the third of the T. The raising of the third of a minor tonic gives the resulting major chord the meaning of an overdominant (No. 96); the lowering of the third of a major tonic gives the resulting minor chord the meaning of a subdominant (No. 93).

Where it happens that the part for figuration has half and quarter notes mixed, and the figuration is to be in eighth notes, more than one intermediate note will have to be introduced where there are half notes, without, however, going beyond the resources mentioned. The following will sufficiently explain how to proceed :

Part for figuration:



Figured part:

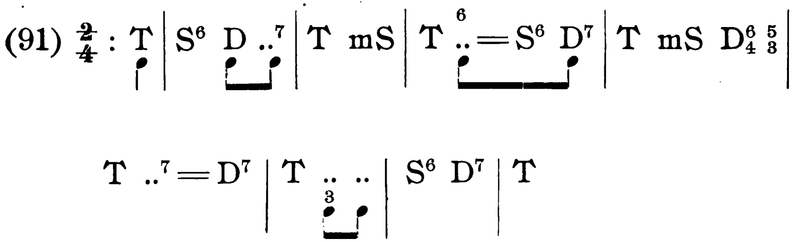


The auxiliary tones on both sides will have to be used, and skips into octaves will have to be made.

Work the exercises with figuration for soprano, alto, tenor and bass parts, and then with divided figuration.

EXERCISES. (For figuration).

All in eighth notes.



(91) $\frac{2}{4}$: T | S^6 D ..^{7} | T mS | T $\overset{6}{..}$ = S^6 D^7 | T mS D$^{6\,5}_{4\,3}$ |

T ..^{7} = D^7 | T $\underset{3}{..}$ .. | S^6 D^7 | T

(92) $\frac{3}{4}$: S^6 D^7 | $\underset{3}{T}$ mS^6 T | D T = D S | T S^6 $\underset{6}{..}$ |

D T $\overset{6}{..}$ = S^6 | D $\underset{3}{T}$ D | T S mS^6 | $\underset{6}{..}$ D^6_4 $..^7$ | T (♩)

(93) 𝄴 : T D mS | T $..^7$ = D^7 T S D ♫ | T $\overset{3>}{..}$ = mS T D |

T mS^6 $D^{6\,5}_{4\,3}$ | T

(94) 𝄵 : mT mD^7 | mS^6 $D^{6>}_4$ ♩ $^5_3$ ♩ | mT $..^7$ ♩ = mD^7 mS^6 ♩ |

mT $D^{6>}_4$ ♩ $^5_3$ ♩ | mT $..^6$ = mS^6 | $\underset{3}{mT}$ $\underset{5}{..}$ |

mS^6 maD^7 | mT (𝅝)

(95) $\frac{3}{4}$: mT | mD mS^6 maD^7 | mT 𝅗𝅥 $..^6$ ♩ = mS^6 |

D $..^7$ mT | maD mT $..^7$ = mD^7 | mS $D^{6>}_4$ $^5_3$ |

mT mS $..^6$ | $\underset{6}{..}$ $D^{6>}_4$ $..^7$ | mT (𝅗𝅥)

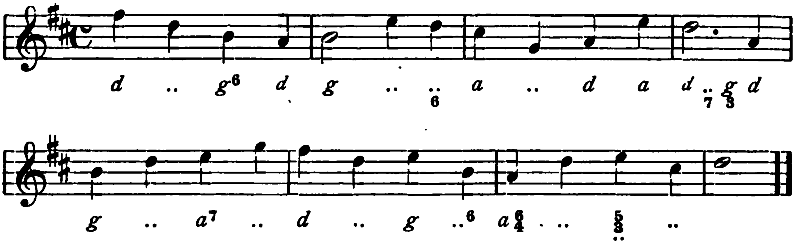
(96) 𝄴 : mT mS maD | mT $..^6$ = mS^6 $D^{6>}_4$ $^5_3$ |

mT $..^{3<}$ = maD mT maD | mT mS^6 $D^{6>5}_{4\;3}$ | mT (♩

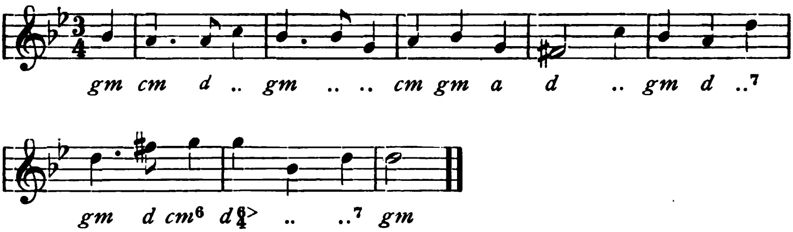
EXERCISES. (Not for figuration).

(*The tonal functions are to be added in working out*).

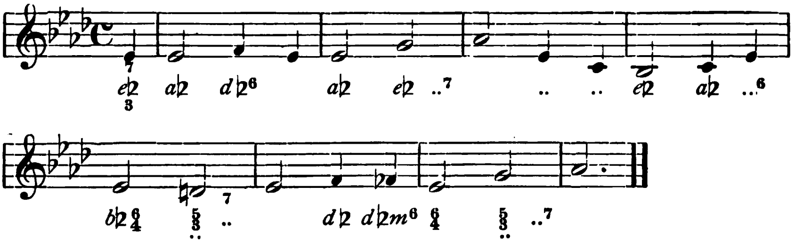
(97) Soprano given.


d .. g6 d g .. .. 6 a .. d a d .. 7 g 5 3 d
g .. a7 .. d .. g ..6 a 6 4 . .. 5 3 .. ..

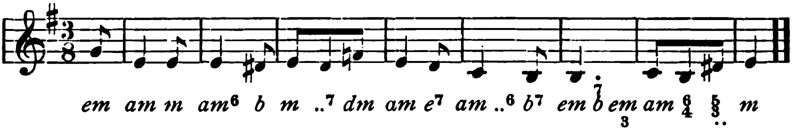
(98)


gm cm d .. gm .. .. cm gm a d .. gm d ..7
gm d cm6 d 6 4> .. ..7 gm

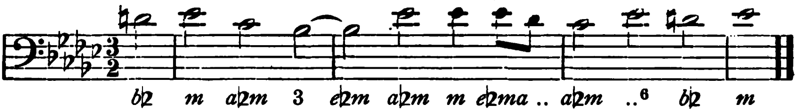
(99) Alto given.


e♭ 7 3 a♭ d♭6 a♭ e♭ ..7 .. .. e♭ a♭ ..6
b♭ 6 4 5 3 .. 7 .. d♭ d♭m6 6 4 5 3 7

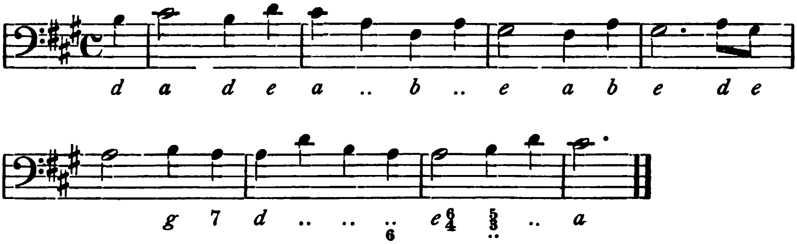
(100)


em am m am6 b m ..7 dm am e7 am ..6 b7 em b 7 em 3 am 6 4 5 3 .. m

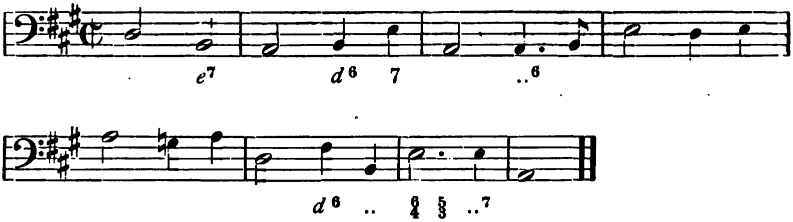
(101) Tenor given.



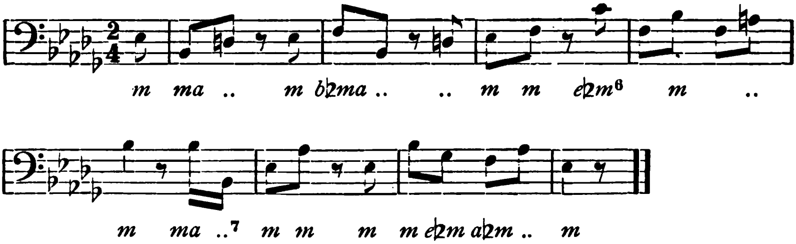
(102)



(103) Bass given.



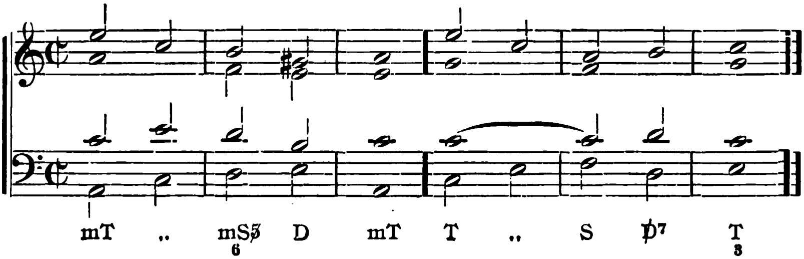
(104)


m ma .. m b♮ma .. .. m m e♮m⁶ m ..
m ma ..⁷ m m m m e♮m a♮m .. m

§ 33. "DIMINISHED" TRIAD. In the simple concord of three tones we might occasionally omit one note, the fifth. It is still more easily done when a fourth (dissonant) tone is added to the chord. On page 45 (Ex. 30, b and g) we omitted the fifth in the dominant seventh chord in order to have the following tonic chord complete.

We can also omit the fifth in the mS⁶ chord. The three remaining tones, d f b, of this chord, when put in this order, b d f, form the so-called "diminished" triad, because from b to f is a diminished fifth. The only tone to double is always the prime (d), because the dissonant tone (6) may not be doubled. We indicate this chord by striking through (cancelling) the fifth ($\cancel{5}$); b d f $= \mathrm{dm}^{\cancel{5}}_{6}$ ($\mathrm{mS}^{\cancel{5}}_{6}$).

If we omit the prime in D^7 (g b d f) we find another diminished triad. The note that is permitted to be doubled is the fifth; the dissonant tone (7) may not be doubled. We express the omission of the prime by striking through the letter; $\cancel{g}^7 =$ b d f ($\cancel{D}^7$).



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T	means the	major	Tonic	chord of	the	major key.
D	“	“	Dominant	“	“	“
S	“	“	Subdominant	“	“	“
mS	“	minor	Subdominant	“	“	“
mT	means the	minor	Tonic	chord of	the	minor key.
mS	“	“	Subdominant	“	“	“
mD	“	“	Dominant	“	“	“
maD	“	major	Dominant	“	“	“

This chart shows on the one half the principal chords of all the major keys (from C♭ to C♯), on the other half it shows all the minor keys (from A♭ to A♯).

The keys succeed each other in fifths. Turning the disc to the right will make the lower (flat) keys appear, turning to the left will show the higher (sharp) keys.

The chart shows all the principal functions any chord can have in the various major and minor keys.

Chart No. 1 is to be used in connection with *Part One* of the *Harmony*.

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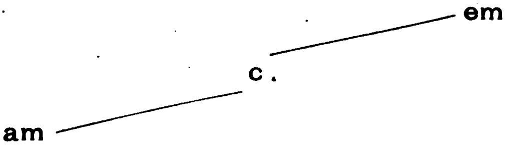
CHAPTER IV.

RELATIVE AND CORRELATIVE CHORDS.

(A. RELATIVES AND CORRELATIVES OF THE T, S, D, mT, mD AND mS.)

§ 34. CHORD GROUPS. The principal chords of a key are related to each other by the Fifth. There exists another relationship of chords, and that is the relationship by the Third. For example, around C-major chord group themselves A-minor and E-minor chords:



We call A-minor chord the relative chord of C-major. E-minor is also a relative chord of C-major, but to distinguish it from the other relative chord (A-minor), we will call it the *correlative chord* of C-major. When the principal chord is major then the relative and correlative chords are always minor. The relative chord is situated a minor third below the prime of the principal (major) chord, and contains the prime and third of the latter.

			g	Principal chord.
Relative chord.	e	. . . . . .	e	
	c	. . . . . .	c	
	a			

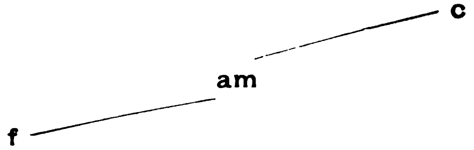
The correlative chord is situated a major third above the prime of the principal (major) chord, and a fifth above the relative chord. The correlative contains the third and fifth of the principal chord.

			b	Correlative chord.
Principal chord.	g	. . . . . .	g	
	e	. . . . . .	e	
	c			

The Dominant and Subdominant chords are a whole tone step (double fifth step f—c—g) apart, and move around the Tonic as their central point. The relative and correlative chords imitate this relationship within a smaller circle, they are only a fifth step apart; move around their principal chord, and can be used as substitutes for it.

EXERCISE. — Find and write the relative and correlative chords of all major chords.

Around A-minor chord group themselves C-major and F-major chords.



Here we find another proof that major and minor are opposites in all things. It has already been stated that when the principal chord is major, then the relative and correlative chords will be minor, consequently when the principal chord is minor then the relative and correlative chords will always be major. With the major chord we found the relative chord situated a minor third below, here the relative of a minor chord is situated a minor third *above* the principal (minor) chord. C-major is the relative chord of A-minor chord. It contains the third and fifth of the principal chord.

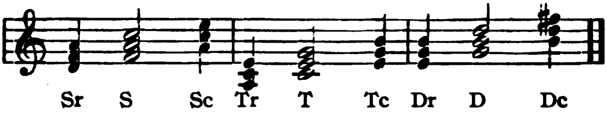
Principal chord.				Relative chord.
			g	
	e	. . . . . .	e	
	c	. . . . . .	c	
	a			

The correlative chord is a major third below the principal (minor) chord, and a fifth below the relative chord. F-major is the correlative chord of A-minor chord. It contains the prime and third of the principal chord.

Principal chord.				Correlative chord.
	e			
	c	. . . . . .	c	
	a	. . . . . .	a	
			f	

EXERCISE.—Write the relative and correlative chords of all minor chords.

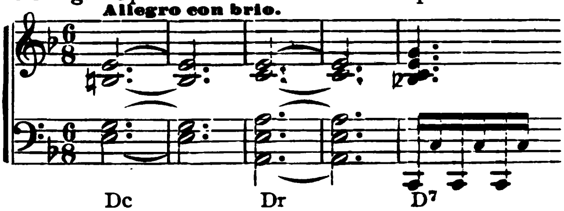
§ 35. THE RELATIVES AND CORRELATIVES OF THE PRINCIPAL CHORDS (T, D, S,) OF THE MAJOR KEY. The relative and correlative chords of the Tonic are named Tonic relative (abbreviated Tr,) and Tonic correlative (abbreviated Tc.) The relative and correlative chords of the Subdominant are named Subdominant relative (Sr), and Subdominant correlative (Sc.) When we omit (cancel) the 5 of the S^6 we get the relative chord of the S, $S^{6}_{\cancel{5}}$ = Sr. The relative and correlative chords of the Dominant are named Dominant relative (Dr) and Dominant correlative (Dc).



In writing, the Dc requires an accidental, nevertheless it belongs to the key, and is used as the following illustration shows:

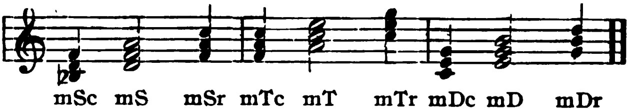
Edvard Grieg. Op. 8. Sonata for violin and piano.

Ex. 40.



The student will notice that the Sc and Tr, the Tc and Dr are represented by the same chord. A chord can have two relationships, just like one and the same man can be a brother to one person and a son of another, or like one man can hold two offices. In Harmonic analysis refer generally the relationship of a chord to the one that precedes it, for example, call the A-minor chord a Sc when it follows the F-major chord (S), but when it follows the C-major chord (T), then call it Tr.

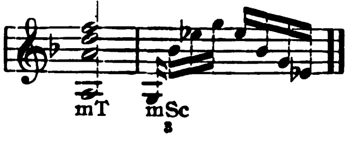
§ 36. THE RELATIVES AND CORRELATIVES OF THE PRINCIPAL CHORDS (mT, mS, mD,) OF THE MINOR KEY. The relative and correlative chords of the minor Tonic are named minor Tonic relative (abbr. mTr) and minor Tonic correlative (abbr. mTc). The relative and correlative of the mS are the minor Subdominant relative (mSr) and the minor Subdominant correlative (mSc). The relative and correlative chords of the mD are the minor Dominant relative (mDr) and the minor Dominant correlative (mDc). When we omit (cancel) the prime of the mD^7 we get the relative chord of the mD, m$\not{D}^7$ = mDr.



In writing, the mSc requires an accidental, nevertheless it belongs to the key. With the 3 in the bass this chord has long been known by the name of the *chord of the Neapolitan sixth*, consisting of a minor third and minor sixth, and situated on the prime of the mS. It is said to have been brought into use by the opera composers of the Neapolitan school (Alessandro Scarlatti, 1649—1725, and pupils).

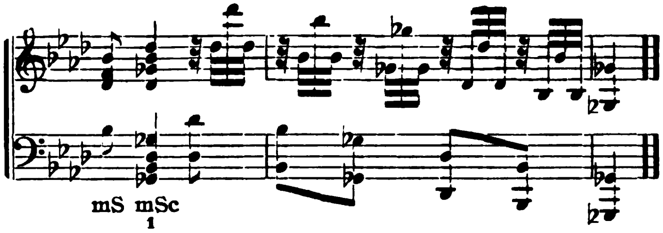
Bach. Violin Sonata, No. 4.

Ex. 41.



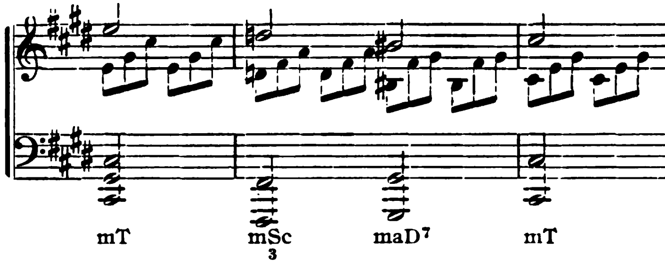
Haydn. Andante varie. F minor.

Ex. 42.



Beethoven. Op. 27, No. 2. Sonata.

Ex. 43.



The functions of mSr and mTc are held by the same chord, and so are mTr and mDc.

§ 37. CLASSIFICATION OF CHORD CONNECTIONS (Continued). The principal chords and their relatives and correlatives make possible the following chord connections, some of the classes have been met before, for example:

The Fifth step, § 18, IN MAJOR: Sr—Sc, Sr—Tr, Sc—Tc, Sc—Dr, Tr—Tc, Dr—Dc. IN MINOR: mDr—mDc, mDc—mTc, mDr—mTr, mTr—mTc, mDc—mSr, mSr—mSc.

The Fourth step, § 21, IN MAJOR: Dr—Tr, Dc—Dr. IN MINOR: mSc—mTc, mSr—mSc.

The Whole tone step, § 22, IN MAJOR: Sr—Tc, Sr—Dr, Sc—Dc, Tr—Dc. IN MINOR: mDr—mTc, mDr—mSr, mDc—mSc, mTr—mSc.

The new chord connections are:

The Minor Third step, § 40. IN MAJOR, descending from major to minor chord. IN MINOR, ascending from minor to major chord.

The Third step, § 41. IN MAJOR, ascending from major to minor chord. IN MINOR, descending from minor to major chord.

The Whole tone step, § 42. IN MAJOR, ascending from major to minor chord. IN MINOR, descending from minor to major chord.

The Half tone step, § 43. IN MAJOR, ascending from minor to major chord. IN MINOR, descending from major to minor chord.

The Fourth step, § 44. IN MAJOR, ascending from minor to major chord. IN MINOR, descending from major to minor chord.

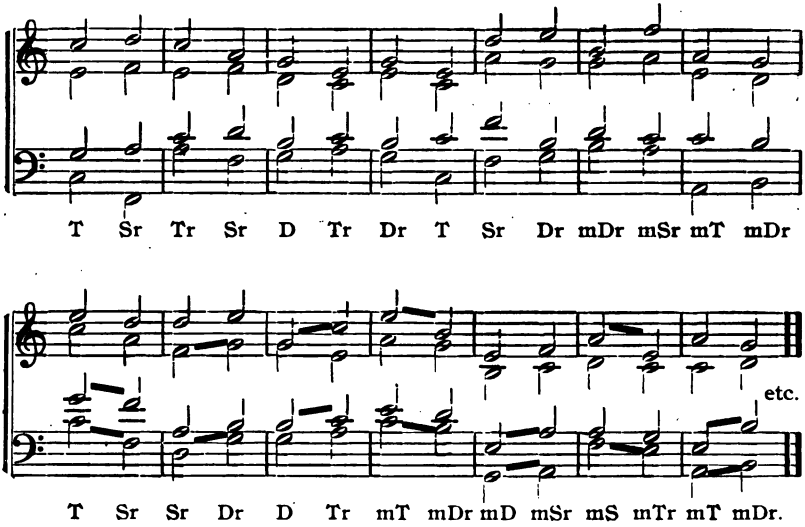
The Minor Third step, § 45. IN MAJOR, from minor to minor chord. IN MINOR, from major to major chord.

The Tritone step, § 46. IN MAJOR, ascending from major to minor chord. IN MINOR, descending from minor to major chord.

Because Minor is the opposite of Major, we have to figure the chord connections in it the opposite way we do in Major and from and to chords of the opposite mode in order to find the equivalent chord connections. The conditions for writing these progressions are given farther on.

§ 38. SPECIAL FEATURES OF RELATIVE AND CORRELATIVE CHORDS. The relative and correlative chords allow the doubling of any of their tones. Being derived from the **T**, the doubling of the third of a **Tr** would merely mean a doubling of the prime of the T, and point to the chord from which it is derived. Doubling the third of a Tc would be merely the doubling of the fifth of the T from which it is derived. The same holds good of all the relatives and correlatives in the Major or Minor key. The doubling of the third of a relative or correlative can even occur in parallel motion.

Ex. 44.

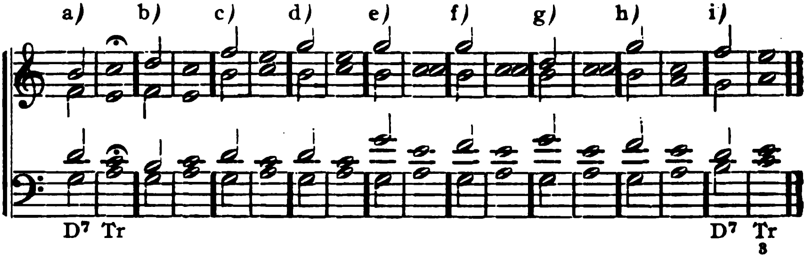

T Sr Tr Sr D Tr Dr T Sr Dr mDr mSr mT mDr
etc.
T Sr Sr Dr D Tr mT mDr mD mSr mS mTr mT mDr.

Proceeding by skip to the 5 of the relatives and correlatives should be avoided, because it produces the undesirable effect of six-four. In the cadence the natural position of the Tr is after the T, the Sr comes after the S, and the Dr after the D. The correlatives form a natural connecting link between the principals and their relatives.

EXERCISE.—Play the pure major cadences (T S D T) of all keys and insert the relatives and correlatives where they belong. Play the pure minor cadences (mT mD mS mT) and insert the relatives and correlatives where they belong.

§ 39. THE "DECEPTIVE" CLOSE IN THE MAJOR KEY. The relative and correlative chords partake somewhat of the nature of their principal chord. The Tr can certainly not have the exact meaning of the T, but it can be used as its substitute. When the Tr takes the place of the T after a D⁷, at the end of the cadence, we get what is known as a "deceptive" close. The doubling of the third of the Tr (which is the doubling of the fundamental tone of the T) is really characteristic in the deceptive close. The equally possible ways of writing as at (h), doubling the prime of the Tr, or as at (i), doubling the fifth of the Tr are exceptions. In this deceptive close the bass moves upwards one degree, while the other parts make their regular progressions.

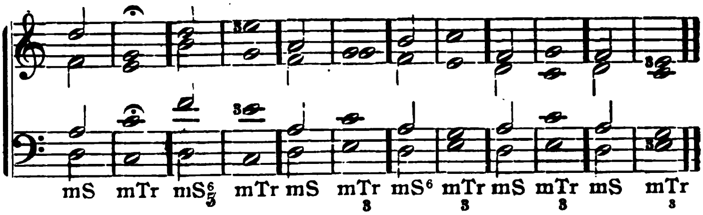
Ex. 45.



The 5 or 7 may be absent in the D. The distance of an octave between alto and tenor, as at (c), is allowed in all deceptive closes, when both pair of parts form thirds.

THE EQUIVALENT OF THIS MAJOR DECEPTIVE CLOSE is, in the minor key, from the mS to the mTr as follows (with or without the sixth to the mS):

Ex. 46.

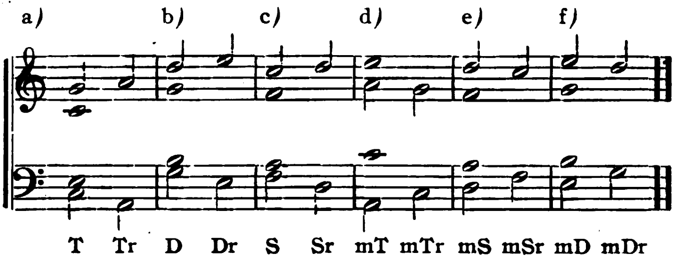


EXERCISE.—Write these deceptive closes in all keys.

§ 40. **MINOR THIRD STEP.** IN MAJOR, descending from major to minor chord: S—Sr, T—Tr or Sc, D—Dr or Tc. IN MINOR, ascending from minor to major chord: mD—mDr, mT—mSr or mDc, mS—mSr or mTc.

Connecting the relatives (and correlatives) with the principal chords, from which they are derived, causes no difficulties as the chords have two tones in common (the interval of the major third). The third part progresses a whole tone step, and the bass usually moves from prime to prime.

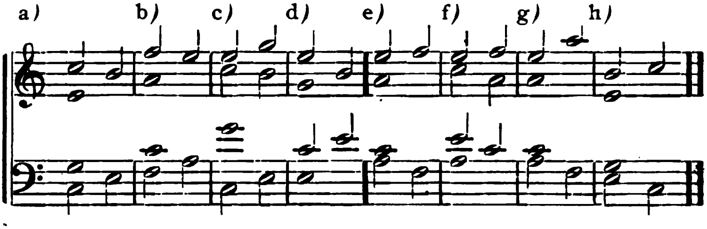
Ex. 47.



§ 41. **THIRD STEP.** IN MAJOR, ascending from major to minor chord: S—Sc or Tr, T—Tc or Dr, D—Dc. IN MINOR, descending from minor to major chord: mD—mDc or mTr, mT—mTc or mSr, mS—mSc.

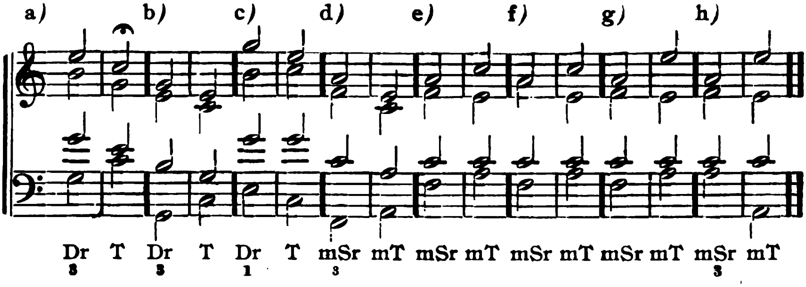
The chords have two tones in common, possess a leading tone (half step) and permit the doubling of the fundamental tones.

Ex. 48.



Exceptional leadings of parts are possible without violating any rules. This chord connection has a special meaning as closing step in place of the return fifth step, for example: Dr—T or mSr—mT instead of D—T and mS—mT. In order to put more vigor into the parts, they are then usually made to proceed by skip, especially in the major close. Schubert was very fond of this progression. It is also possible in the minor key.

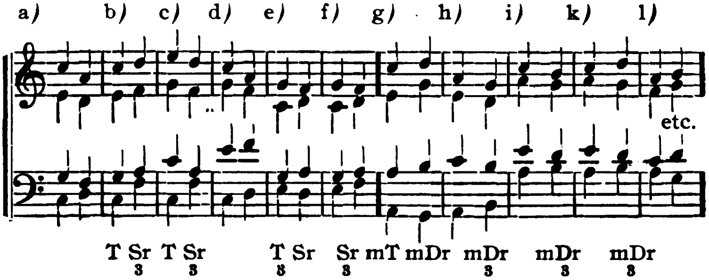
Ex. 49.



§ 42. **WHOLE-TONE STEP.** IN MAJOR, ascending from major to minor chord: T—Sr, D—Tr or Sc. IN MINOR, descending from minor to major chord: mT—mDr, mS—mTr or mDc.

The chords have no tones in common, therefore there is danger of consecutive fifths and octaves, which can be easily avoided, if the possible leading tone step is given up or the third doubled in the relative (or correlative) chord.

Ex. 50.

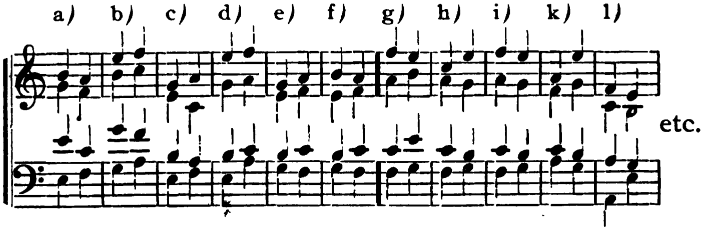

a) b) c) d) e) f) g) h) i) k) l)
etc.
T Sr T Sr T Sr Sr mT mDr mDr mDr mDr
3 3 3 3 3 3 3

See also § 39, Ex. 46.

§ 43. **HALF-TONE STEP.** IN MAJOR, ascending from minor to major chord: Dr or Tc — S, Dc — T. IN MINOR, descending from major to minor chord: mSc—mT, mTc or mSr—mD.

This chord connection gives rise to some difficulties, namely, risks of consecutive fifths and octaves, tritone (augmented fourth). They can, however, be avoided.

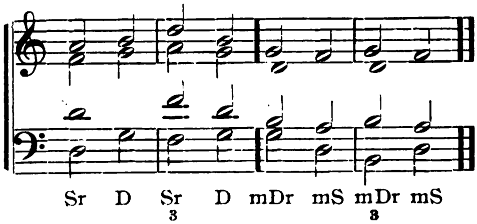
Ex. 51.



§ 44. **FOURTH STEP.** IN MAJOR, ascending from minor to major chord: Sr—D. IN MINOR, descending from major to minor chord: mDr—mS.

This chord connection has the same meaning as the whole-tone step (§ 22), without its dangers. Two parts move by whole-tone steps, and the bass usually moves from prime to prime. Because the relative is used as a substitute for the principal chord, it is very important for modulation.

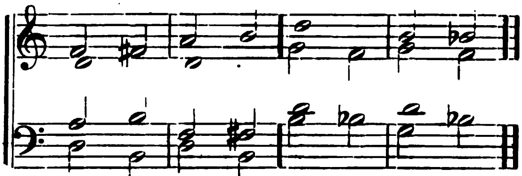
Ex. 52.



§ 45. **MINOR THIRD STEP.** IN MAJOR, from minor to minor chord: Sr—Dc. IN MINOR, from major to major chord: mDr—mSc.

This chord connection has a chromatic step, which observe.

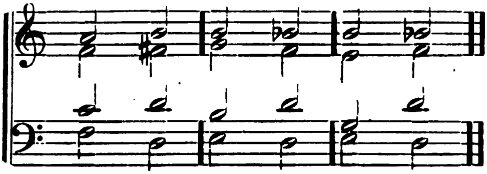
Ex. 53.



§ 46. **TRITONE STEP.** IN MAJOR, ascending from major to minor chord: S—Dc. IN MINOR, descending from minor to major chord: mD—mSc.

Contains one possible augmented step, which can be avoided if the chromatic or the leading tone step is observed.

Ex. 54.



§ 47. **MODULATION.** (Continued.) The use of relative and correlative chords opens up a surprisingly great number of modulations, as the following tables will show. From each key there are sixty-two modulations possible into six major and six minor keys.

T — mTr
“ mSr
“ mDr
“ mTc
“ mSc
“ mDc

D — mTr
“ mSr
“ mDr
“ mTc
“ mSc
“ mDc

S — mTr
“ mSr
“ mDr
“ mTc
“ mSc
“ mDc

Tr — mT
“ mS
“ mD
“ Sr
“ Dr
“ Dc
“ Tc

Dr — mT
“ mS
“ mD
“ Tr
“ Sr
“ Sc
“ Dc

Sr = mT
“ mS
“ mD
“ Tr
“ Dr
“ Sc
“ Dc
“ Tc

Tc — mT
“ mS
“ mD
“ Tr
“ Sr
“ Sc
“ Dc

Dc — mT
“ mS
“ mD
“ Tr
“ Sr
“ Dr
“ Sc
“ Tc

Sc — mT
“ mS
“ mD
“ Sr
“ Dr
“ Dc
“ Tc

mT = Tr
“ Sr
“ Dr
“ Tc
“ Sc
“ Dc

mS — Tr
“ Sr
“ Dr
“ Tc
“ Sc
“ Dc

mD — Tr
“ Sr
“ Dr
“ Tc
“ Sc
“ Dc

mTr — T
“ S
“ D
“ mSr
“ mDr
“ mSc
“ mTc

mSr — T
“ S
“ D
“ mTr
“ mDr
“ mSc
“ mDc

mDr — T
“ S
“ D
“ mTr
“ mSr
“ mSc
“ mDc
“ mTc

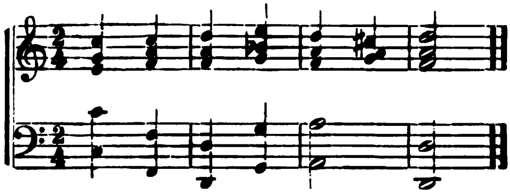
mTc — T
“ S
“ D
“ mTr
“ mDr
“ mDc
“ mSc

mSc — T
“ S
“ D
“ mTr
“ mDr
“ mDc
“ mSr
“ mTc

mDc — T
“ S
“ D
“ mSr
“ mDr
“ mSc
“ mTc

EXERCISE.—Study the tables by figuring out into what keys the change of functions will lead. An excellent practice is to play the cadences up to the chord changing its meaning, and then enter the new key with the chord indicated. Compare Part 1, § 27.

Ex. 55.



T S Sr=mT mS$^{6}_{\not 5}$ D$^{6>}_{4}$..^{7} mT

When the new key is entered by the D side, for example, mT, mS, mDr = D, then the modulation plunges too rapidly to the end, and is not satisfactory. It is better, therefore, to turn to the S side after such a change of function, and then finish in the customary manner. The following exercises end in the same key they start. They were not devised for the sake of beauty, but for the practice of modulations of the most varied kind. The author's Revolving Chart of Harmony No. 2, will be found an immense help in the study of modulation.

EXERCISES.

(*Divided figuration in eighth notes. See* § 32.)

(105) $\frac{3}{4}$: T ♩ | Sr$_{3}$ 𝅗𝅥 D^{7} | T = mTr mD | mS$^{6}_{3}$ maD^{3} |

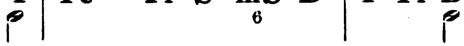
mT = Sr ..$_{3}$ | D$^{6}_{4}$ ..^{7} | T Tr$_{3}$ = Dr | Sr ♩ mS^{6} ♩ D ♩ | T 𝅗𝅥

(106) 𝄴: mS ♩ D^{7} ♩ mT 𝅗𝅥 | mTc = mTr mS ..$_{6}$ maD^{7} |

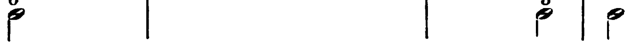
mT mTr mS 𝅗𝅥 = Sc | S ..$_{6}$ D$^{6}_{4}$ ..^{7} | T D Dc 𝅗𝅥 = mT |

mS mSc mSr$_{3}$ 𝅗𝅥 | D$^{6>}_{4}$ .. D ..^{7} | mT

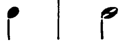
(107) 𝄴: S D^7 T | Tc = Tr S^6 $\underset{6}{\mathrm{mS}}$ D^7 | T Tr D = mDc |



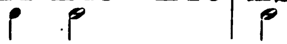
$\underset{6}{\mathrm{mS}}$ $\mathrm{D}^{6>}_{4}$ $\substack{5\\8}$ | mT mS mSc = T | S Sr $\underset{8}{\mathrm{mS}}$ | D^{6}_{4} $\substack{5\\3}$ $..^{7}$ | T



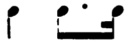
(108) $\frac{3}{4}$: mT | mDr mS^6 | mT = Tr T | S D^7 |



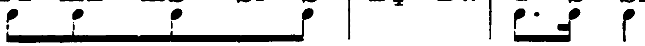
T = mDr mS | $\mathrm{D}^{6>}_{4}$ $\substack{5\\3}$ | mT mTr = mTc | mS^6 D^7 | mT



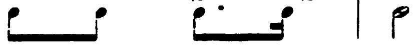
(109) $\frac{2}{4}$: T S D^7 | T = mSc .. $\underset{8}{..}$ | $\mathrm{D}^{6>}_{4}$ D^7 .. |



mT mD mS = Sr S^6 | D^{6}_{4} $\mathrm{D}..^{7}$ | T S Sr = Tc |



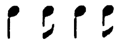
T Tr S mS | T



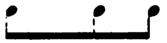
(110) $\frac{3}{4}$: mT mS^6 maD | mT = Dc D mS | T D^{6}_{4} $\substack{5\\8}$ |

T D=mDr .. | mS $\underset{6}{..}$ D | mT mDr=$\underset{8}{\mathrm{mTc}}$ .. | mS $\mathrm{D}^{6>}_{4}..^{7}$ | mT

(111) $\frac{6}{8}$: T D T S | Sr=mT mD mS^6 D^7 | mT .. mTr .. |



mDr=S $\underset{8}{..}$ D^{6}_{4} $..^{7}$ | T D T S | Sr = mT .. D^7 mT .. |



.. = Sc S D^{6}_{4} $..^{7}$ | T

(112) 𝄴: mT mS mT mD | mDr=T S^6 D $..^{7}$ | T Dr Sc S |

Sr=mD mS^6 D $..^{7}$ | mT mTc mTr .. | mDr=T S^6 D^{6}_{4} $\substack{5\\3}$ |

T = mDc mS $\mathrm{D}^{6>}_{4}$ $..^{7}$ | mT

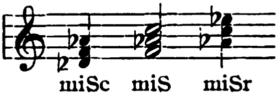
(113) 𝔈: T D T S | Sr = Dc .. D mS | T .. S T |
D = mSc $\underset{3}{..}$ D^6_4 $..^7$ | mT mTc mS .. | mSc = mDr mD^7
mS^6 maD^7 | mT .. mS^6 mT | mS $\underset{\text{𝅗𝅥}}{=}$ Dc $D..^7$ | T S mS T |
Tc = Sr $\underset{6}{S}$ $D^6_4..^7$ | T S Sr D | Dc = Sr S $D^6_4..^7$ | T .. $\underset{3}{Tr}$ .. |
S = mDr mS $\underset{6}{..}$ maD | mT .. mTr .. | mDr = mSc mS^6 $D^{6>}_{4}{}^{5}_{3}$ |
mT mTc mT .. | mTr = mSr mS $D^{6>}_4..^7$ | mT mSr $D^{6>}_4{}^5_3$ |
mT mTc mTr mS | mT = Tc Tr S $\underset{6}{..}$ | D^6_4 .. $D..^7$ |
$\underbrace{\underset{1}{\underset{\text{𝅗𝅥}}{\mathrm{T}}}\quad \mathrm{S}\quad \mathrm{mS} \mid \underset{1}{\mathrm{T}}}$

(114) 𝔈: mT mS mT mD | mDr = mSc .. mS maD |
mT .. maD mT | mS = Dc S $D^6_4..^7$ | T Tc D .. |
Dc = Sr S mS^6 D^7 | T .. D^7 T | D = mSc mS $D..^7$ |
mT mD maD mT | mTc = mDr mS^6 D^6_4 $..^7$ | mT mD
mDr mS | mSc = mDr mS $D^{6>}_4{}^5_3$ | mT .. $\underset{3}{mTr}$ .. | mD = Sr
D $\underset{3}{T}$ $\underset{1}{mS}$ | T .. Tr .. | Sr = Dc Sr $D^6_4..^7$ | T Tc T .. |
Tr = Dr S $D^6_4..^7$ | T Sr $D^6_4{}^5_3$ | T Tc Tr D | T = mTc ..
mTr mS^6 | $D^{6>}_4$ .. $D..^7$ | $\underbrace{\underset{1}{\mathrm{mT}}\quad \mathrm{mD}\quad \mathrm{mS}\quad \mathrm{maD}^7 \mid \underset{1}{\mathrm{mT}}}_{\text{N. B.}}$

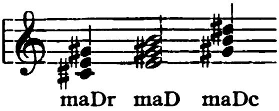
N. B.—Hold out the tone in the bass, even where it does not form part of the chords called for.

B. RELATIVES AND CORRELATIVES OF THE miS AND maD.

§ 48. The letter S indicates the Subdominant chord in a major key, the D indicates the Dominant in a major key. When the major Dominant is used in a minor key, we indicate it by maD; when the minor Subdominant is used in a major key, we indicate it henceforth by miS, because mS should indicate the minor Subdominant in a minor key. The relative and correlative chords of the miS are called minor Subdominant relative and minor Subdominant correlative. In C—major key they are the following chords:



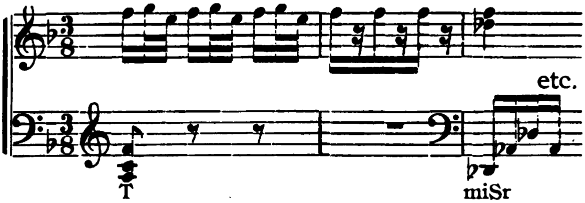
The relative and correlative chords of the maD are called major Dominant relative and major Dominant correlative. In A—minor key they are the following chords:



The miSc occurs frequently, while the maDc is rare and consequently less familiar.

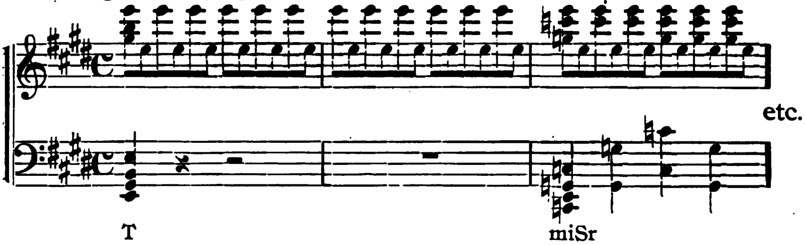
Beethoven. Andante in F.

Ex. 56.



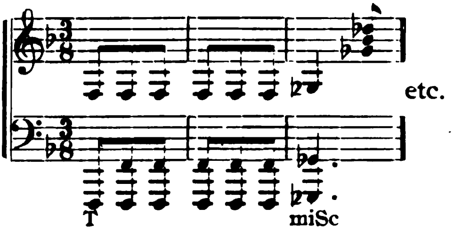
Ex. 57.

Wagner, "Flying Dutchman."



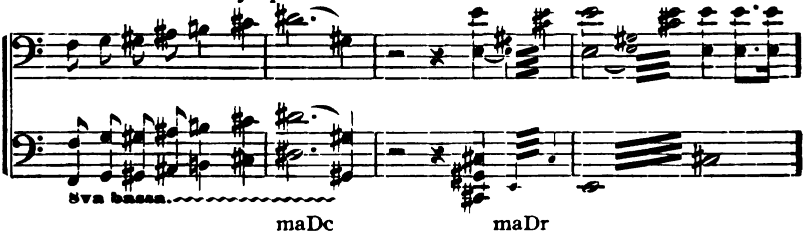
Beethoven. Andante in F.

Ex. 58.



Ex. 59.

Liszt. Dante—Symphonie.



It would increase this book considerably beyond the size allotted to a text-book, to bring illustrations of all chord connections, from the masters; but the assiduous pupil can mark such in his book, as he finds them in his study of Harmonic analysis.

§ 49. CLASSIFICATION OF CHORD CONNECTIONS. (Continued.) The connecting of the relatives and correlatives of the miS, or maD, with the other chords of the key introduces chords of the same mode in succession, the result is a number of new chord connections. The classes that have been met before are:

The Third step. § 41. IN MAJOR, ascending from major to minor chord: miSc—miS. IN MINOR, descending from minor to major chord: maDc—maD.

The Fifth step. § 18. IN MAJOR, from major to major chord: miSc—miSr. IN MINOR, from minor to minor chord: maDc—maDr.

The Minor Third step. § 40. IN MAJOR, descending from major to minor chord: miSr—miS. IN MINOR, ascending from minor to major chord: maDr—maD.

The Tritone step. § 46. IN MAJOR, ascending from major to minor chord: miSr—Sr. IN MINOR, descending from minor to major chord: maDr—mDr.

The Minor Third step. § 45. From major to major chord: S—miSr, mDr—maD. From minor to minor chord: Sr—miS, mD—maDr.

The new chord connections are:

The Chromatic step. § 51. IN MAJOR, ascending from major to minor chord. IN MINOR, descending from minor to major chord.

The Third step. § 52. IN MAJOR, from major to major chord, also from minor to minor chord. IN MINOR, from minor to minor chord, also from major to major chord.

The Diminished Fourth step. § 53. IN MAJOR, descending from major to minor chord. IN MINOR, ascending from minor to major chord.

The Half Tone step. § 54. IN MAJOR, from major to major chord, also from minor to minor chord. IN MINOR, from minor to minor chord, also from major to major chord.

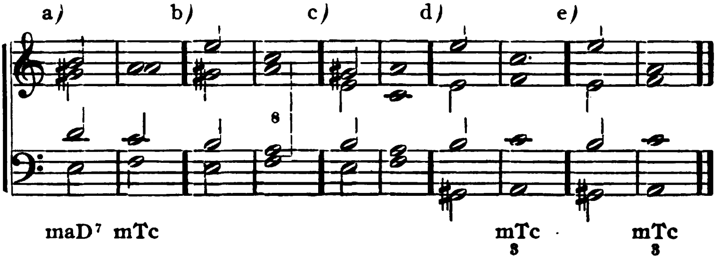
The Augmented Second step. § 55. IN MAJOR, ascending from major to minor chord. IN MINOR, descending from minor to major chord.

The Tritone step. § 56. IN MAJOR, from major to major chord, also from minor to minor chord. IN MINOR, from minor to minor chord, also major to major chord.

The Diminished Third step. § 57. IN MAJOR, descending from major to minor chord. IN MINOR, ascending from minor to major chord.

§ 50. "DECEPTIVE" CLOSE IN THE MINOR KEY. When the mTc takes the place of the mT after a maD (with or without the seventh) at the end of the cadence, we get the most frequent form of "deceptive close" in the minor key.

Ex. 60.

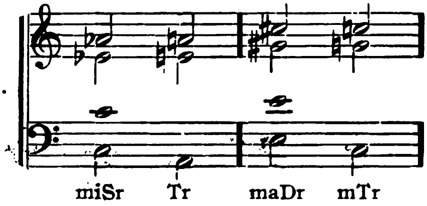


The distance of an octave from alto to tenor may be approved of in all cases where both couples form thirds. a)—c) are the typical forms of the deceptive close in minor. d) and e) are rare and not so good, because the third instead of the prime is in the bass.

§ 51. **CHROMATIC STEP.** IN MAJOR, ascending from major to minor chord: miSc—Sr, miSr—Tr or Sc. IN MINOR, descending from minor to major chord: maDc—mDr, maDr—mTr or mDc.

There is an occasion for a sustained note, and also for two chromatic tone steps, but likewise danger of consecutive fifths and an augmented fourth.

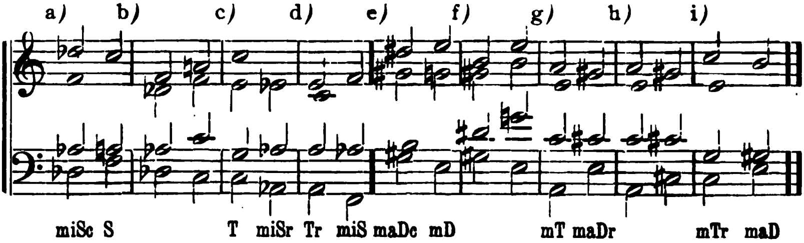
Ex. 61.



§ 52. **THIRD STEP.** IN MAJOR, from major to major chord: miSc—S, T—miSr. Also from minor to minor chord: Tr or Sc—miS. IN MINOR, from minor to minor chord: maDc—mD, mT—maDr. Also from major to major chord: mTr or mDc—maD.

This chord connection meets with no difficulties, but possesses the peculiarity of a chromatic step. A leading of parts as at b) and f) will be employed very rarely, because there are skips in nearly all parts.

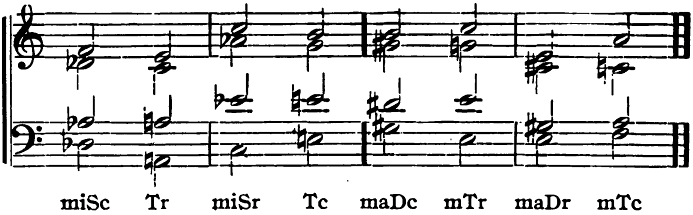
Ex. 62.



§ 53. **DIMINISHED FOURTH STEP.** IN MAJOR, descending from major to minor chord: miSc—Tr or Sc, miSr—Tc or Dr. IN MINOR, ascending from minor to major chord: maDc—mTr or mDc, maDr—mTc or mSr.

Has two leading tone steps and a chromatic step, also possibilities of an undesirable augmented second and an augmented fifth.

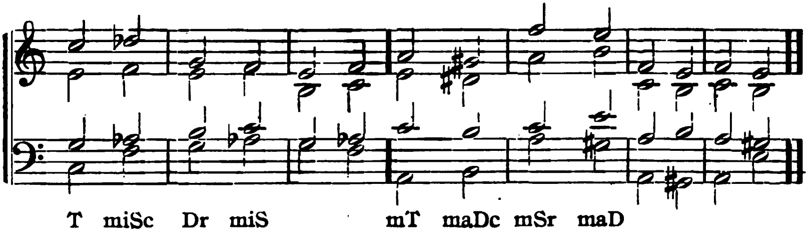
Ex. 63.



§ 54. **HALF-TONE STEP.** IN MAJOR, from major to major chord: T—miSc, D—miSr. Also from minor to minor chord: Tc or Dr—miS. IN MINOR, from minor to minor chord: mT—maDc, mS—maDr. Also from major to major chord: mTc or mSr—maD.

A chord connection which has dangers of consecutive fifths and octaves, because all the notes can form leading tone steps, when the chords are placed side by side. The augmented second is quite an obstacle. The best way to avoid these risks is to double the third of the relative or correlative chord.

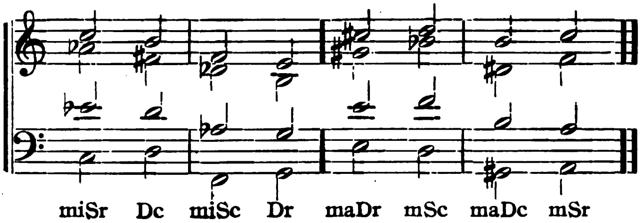
Ex. 64.



§ 55. AUGMENTED SECOND STEP. IN MAJOR, ascending from major to minor chord: miSc—Tc or Dr, miSr—Dc. IN MINOR, descending from minor to major chord: maDc—mTc or Sr, maDr—mSc.

Possesses the possibility of two augmented seconds, two augmented fourths, an augmented fifth and an augmented sixth, all of which are permitted only in inversion, when they produce diminished intervals.

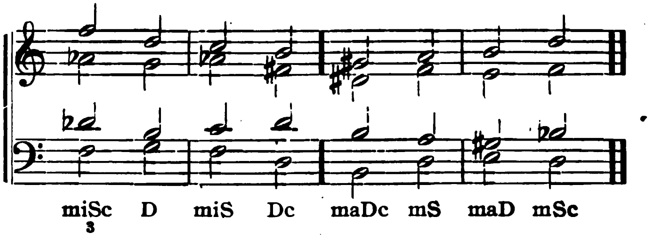
Ex 65.



§ 56. TRITONE STEP. IN MAJOR, from major to major chord: miSc—D. Also from minor to minor chord: miS—Dc. IN MINOR, from minor to minor chord: maDc -mS. Also from major to major chord: maD—mSc.

This chord connection has three tritone steps and an augmented step, which are to be avoided. When the possible diminished third step is made, the connection becomes simple.

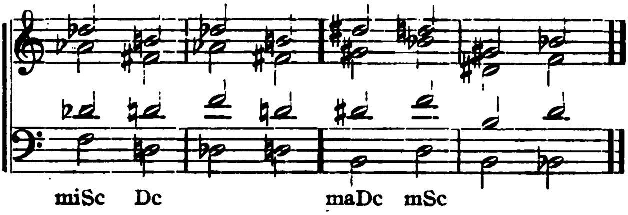
Ex. 66.



§ 57. DIMINISHED THIRD STEP. IN MAJOR, descending from major to minor chord: miSc—Dc. IN MINOR, ascending from minor to major chord: maDc—mSc.

Connection of very distantly related chords. An augmented second, an augmented fifth and two augmented sixths are obstacles in the way, but there is the possibility of making two diminished third steps simultaneously.

Ex. 67.



§ 58. **MODULATION.** (Continued.) A great number of modulations are made possible by the use of the miS and its relative and correlative chords, or the maD and its related chords. From a major key fifty-four new modulations can be made into ten major and seven minor keys. From a minor key the same number of modulations can be made into ten minor and seven major keys.

EXERCISE. Study the following tables as advised in § 47.

T = miSr
“ miSc
S = miSr
“ miSc
D = miSr
“ miSc

miS = Tr
“ Sr
“ Dr
“ maDr
“ Tc
“ Sc
“ Dc
“ maDc

Tr = miS
“ maDr
“ maDc
Sr = miS
“ maDr
“ maDc
Dr = miS
“ maDr
“ maDc

miSr = T
“ S
“ D
“ maD
“ mTr
“ mDr
“ mSr
“ mSc
“ mDc
“ miSc
“ mTc

Tc = miS
“ maDr
“ maDc
Sc = miS
“ maDr
“ maDc
Dc = miS
“ maDr
“ maDc

miSc = T
“ S
“ D
“ maD
“ mTr
“ mDr
“ mSr
“ miSr
“ mSc
“ mDc
“ mTc

mT = maDr
“ maDc
mD = maDr
“ maDc
mS = maDr
“ maDc

maD = mTr
“ mSr
“ miSr
“ mDr
“ mTc
“ mSc
“ miSc
“ mDc

mTr = maD
“ miSr
“ miSc
mDr = maD
“ miSr
“ miSc
mSr = maD
“ miSr
“ miSc

maDr = mT
“ mS
“ miS
“ mD
“ Tr
“ Dr
“ Sr
“ Sc
“ Dc
“ maDc
“ Tc

mTc = maD
“ miSr
“ miSc
mDc = maD
“ miSr
“ miSc
mSc = maD
“ miSr
“ miSc

maDc = mT
“ mS
“ miS
“ mD
“ Tr
“ Dr
“ maDr
“ Sr
“ Sc
“ Dc
“ Tc

The object of the following exercises is to crowd therein, in the smallest space possible, some examples of the chord progressions to which the preceding paragraphs are devoted.

In working out, the tonal functions of the chords are to be added by the student.

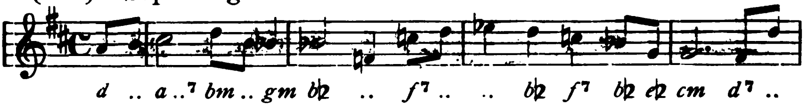
In analysing, adhere to the old key as long as possible, and try to locate the pivoting points of the modulation on the heavy beats of the measure.

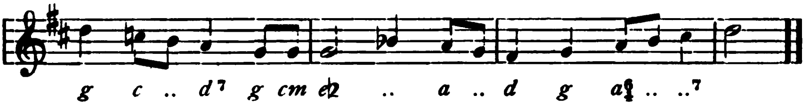
A change of position by way of figuration may occasionally be resorted to, in order to make smoother progressions to the following chord possible, but the given part must never be altered.

A few passing tones are used, find them and mark them p. t.

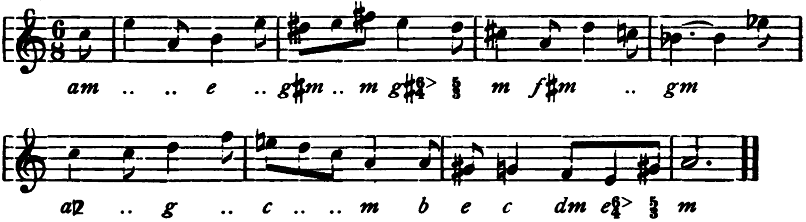
EXERCISES.

(115) Soprano given.

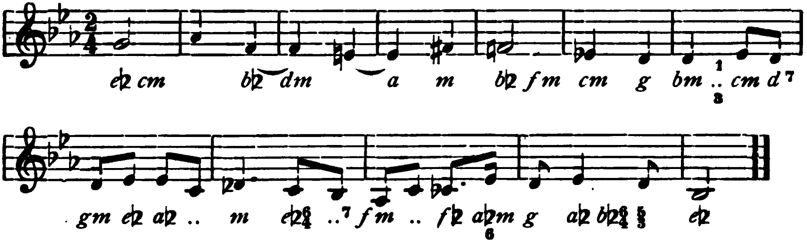




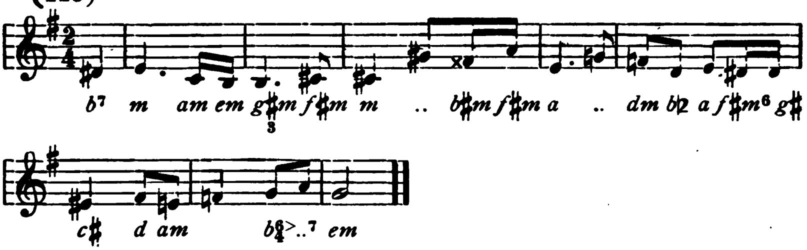
(116)


am .. .. e .. g♯m .. m g♯6/4> 5/3 m f♯m .. gm
a♭ .. g .. c .. .. m b e c dm e6/4> 5/3 m

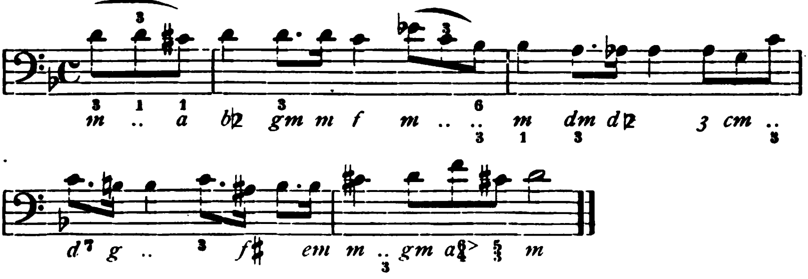
(117) Alto given.


e♭ cm b♭ dm a m b♭ fm cm g bm 1/../3 cm d7
gm e♭ a♭ .. m e♭6/4 ..7 fm .. f♭ a♭m 6 g a♭ b♭6/4 5/3 e♭

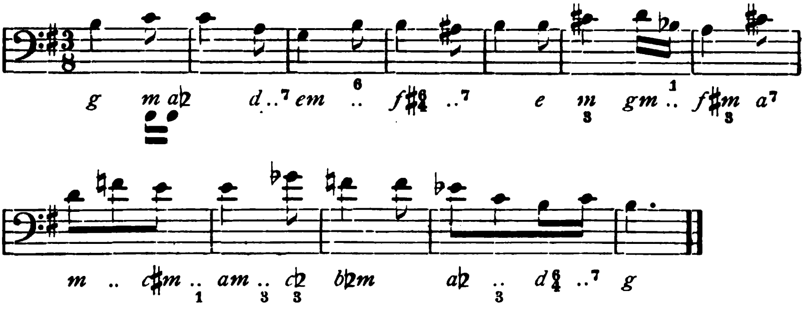
(118)



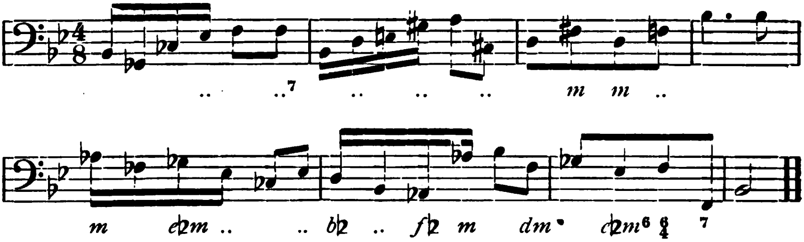
(119) Tenor given.


3
3 1 1 3 6
m .. a b♭ gm m f m .. .. m dm d♭ 3 cm ..
3 1 3 3
d7 g .. 3 f♯ em m .. gm a6/4> 5/3 m
3

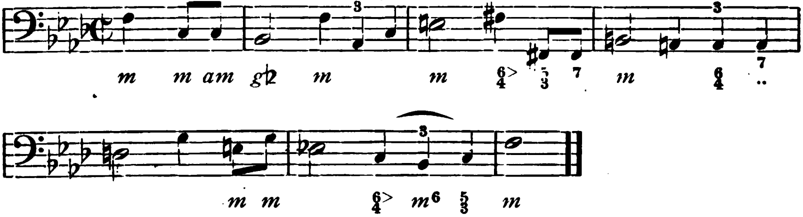
(120)



(121) Bass given.



(122)



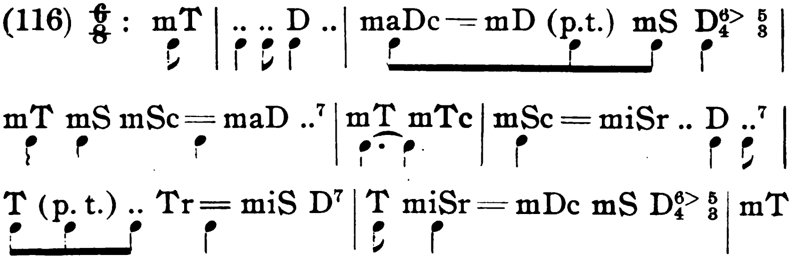
KEY TO EXERCISES Nos. 115—122.

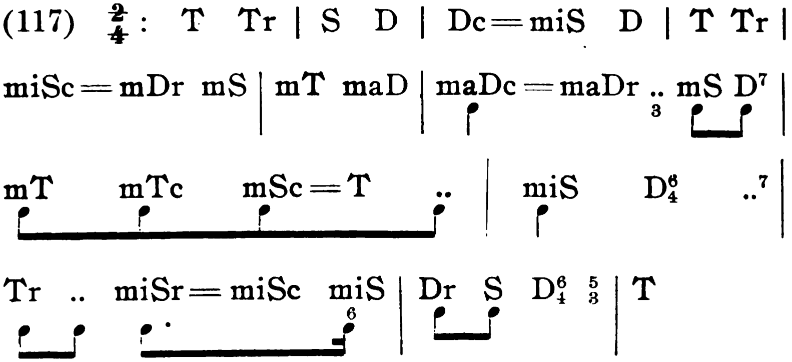
(These solutions can be used as new exercises, when worked in different keys.)

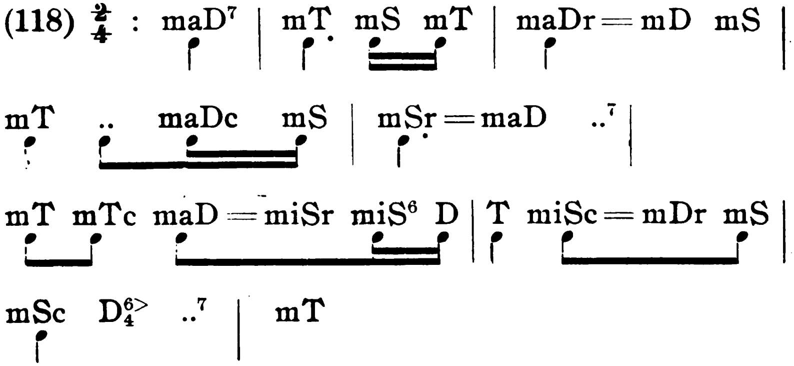
(115) C : T (p. t.) | D ..⁷ Tr .. miS | miSr = T .. D^7 (p. t.) |

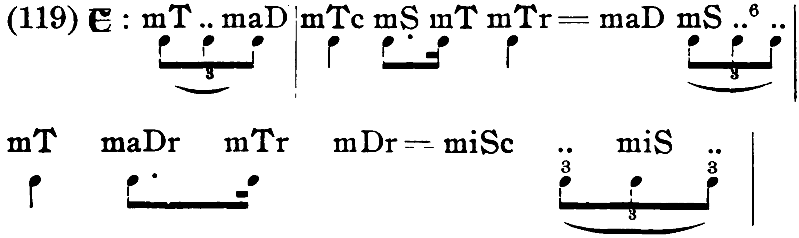
.. T D^7 T S | Sr = miS D^7 .. | T S (p. t.) D^7 T miS |

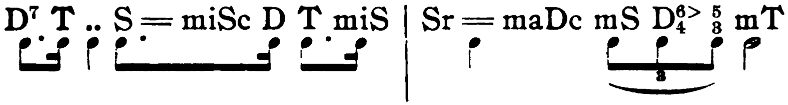
miSr = miSc .. D ..⁷ | T S D^6_4 (p. t.) D^5_3 | T


(116) $\frac{6}{8}$: mT | .. .. D .. | maDc = mD (p.t.) mS D$_4^{6>}$ $\frac{5}{3}$ |
mT mS mSc = maD ..^{7} | mT mTc | mSc = miSr .. D ..^{7} |
T (p. t.) .. Tr = miS D^7 | T miSr = mDc mS D$_4^{6>}$ $\frac{5}{3}$ | mT

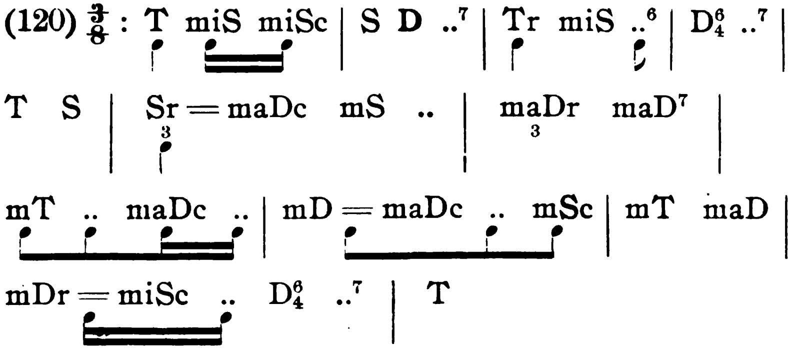

(117) $\frac{2}{4}$: T Tr | S D | Dc = miS D | T Tr |
miSc = mDr mS | mT maD | maDc = maDr .. mS D^7 |
mT mTc mSc = T .. | miS D$_4^6$ ..^{7} |
Tr .. miSr = miSc miS | Dr S D$_4^6$ $\frac{5}{3}$ | T


(118) $\frac{2}{4}$: maD^7 | mT mS mT | maDr = mD mS |
mT .. maDc mS | mSr = maD ..^{7} |
mT mTc maD = miSr miS^6 D | T miSc = mDr mS |
mSc D$_4^{6>}$ ..^{7} | mT


(119) C: mT .. maD | mTc mS mT mTr = maD mS ..^{6} .. |
mT maDr mTr mDr = miSc .. miS .. |



D^7 T .. S = miSc D T miS | Sr = maDc mS $D_4^{6>}$ $\frac{5}{3}$ mT

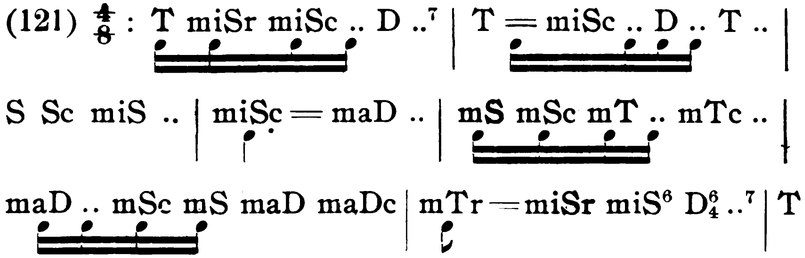


(120) $\frac{3}{8}$: T miS miSc | S D ..^{7} | Tr miS ..^{6} | D_4^6 ..^{7} |

T S | Sr = maDc mS .. | maDr maD^7 |

mT .. maDc .. | mD = maDc .. mSc | mT maD |

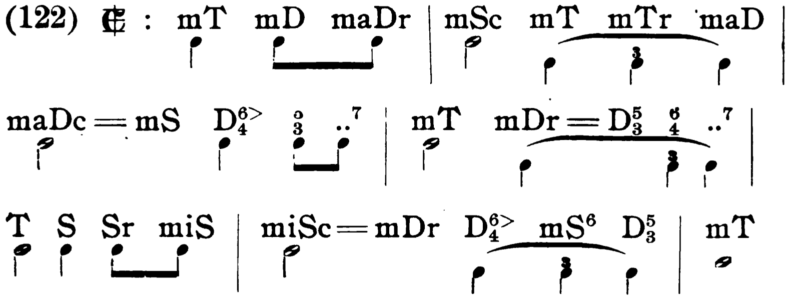
mDr = miSc .. D_4^6 ..^{7} | T



(121) $\frac{4}{8}$: T miSr miSc .. D ..^{7} | T = miSc .. D .. T .. |

S Sc miS .. | miSc = maD .. | mS mSc mT .. mTc .. |

maD .. mSc mS maD maDc | mTr = miSr miS^6 D_4^6 ..^{7} | T



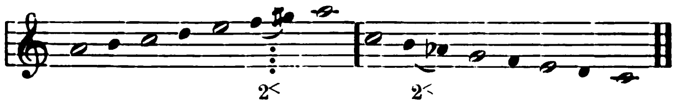
(122) ₵ : mT mD maDr | mSc mT mTr maD |

maDc = mS $D_4^{6>}$ $\frac{5}{3}$ ..^{7} | mT mDr = D_3^5 $\frac{6}{4}$ ..^{7} |

T S Sr miS | miSc = mDr $D_4^{6>}$ mS^6 D_3^5 | mT

C. THE MINOR SUBDOMINANT WITH RAISED THIRD (mS3<) AND THE MAJOR DOMINANT WITH LOWERED THIRD (D3>).

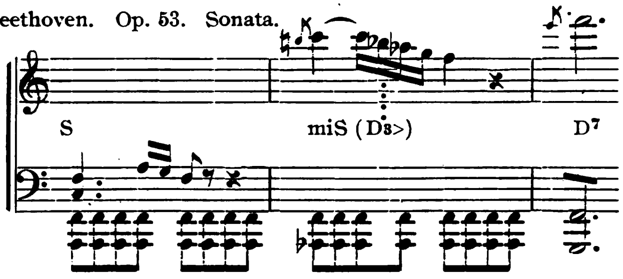
§ 59. The miS in the major key and the maD in the minor key introduce an augmented second into the scale :



Very often, especially in figuration by means of auxiliary or passing tones, this augmented interval is reduced to a whole tone by chromatically altering the 3 of the mS or D.

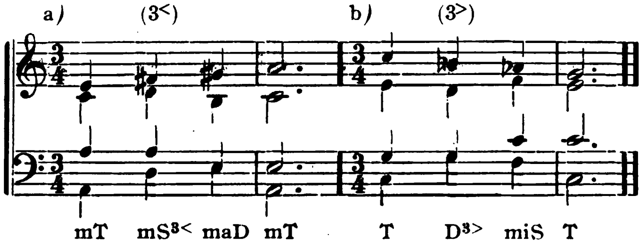
Beethoven. Op. 53. Sonata.

Ex. 68.



But these tones may be harmonized in such a manner that they must be looked upon as chromatically altered thirds of the mS or D.

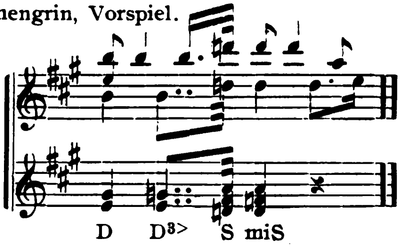
Ex. 69.



Apparently this gives the major key a minor D and the minor key a major S. Nevertheless they must be looked upon merely as licences, and not as key-making (principal) chords. The artificial notes are supposed to lead to the third of the maD or miS, when they do not do this, then the progressions as musical ellipses require leaps in the conception. The raised third of the mS (mS$^{3<}$) if used without modulation and without progressing to the 3 of the maD will produce effects peculiar to the "Dorian mode" of the fifteenth to the seventeenth centuries. The lowered third of the D (D$^{3>}$), if used without modulation and without progressing to the 3 of the miS, will reproduce the characteristics of the "Mixolydian mode." The mS$^{3<}$ illumines the minor key and the D$^{3>}$ clouds the major key, even when the naturally expected chords do not appear.

Wagner. Lohengrin, Vorspiel.

Ex. 70.

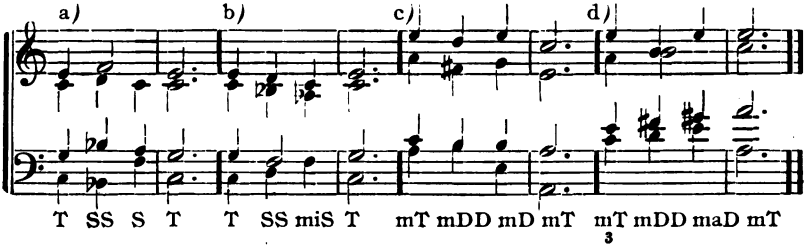


For D$^{3>}$ see also Schubert, Ex. 156, on page 124.

D. THE DOMINANTS OF THE DOMINANT (DD, mDD, maDD) AND THE SUBDOMINANTS OF THE SUBDOMINANT (SS, miSS, mSS).

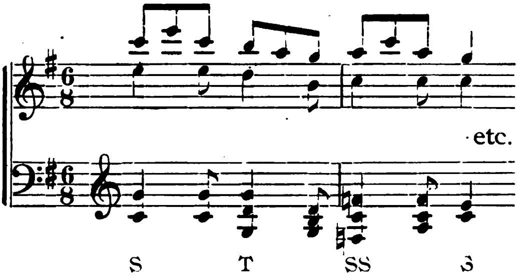
§ 60. A major key can branch (reach) out above the D and below the S and use the chords beyond without inducing a modulation. The use of the DD (Dominant of the Dominant), gives the D side especial stress. The extension of the key to the SS (S of the S) and especially to the miSS (miS of the S) brings darker shades into the key. The same holds good of the mSS, the mDD and the maDD in the minor key.

Ex. 71.



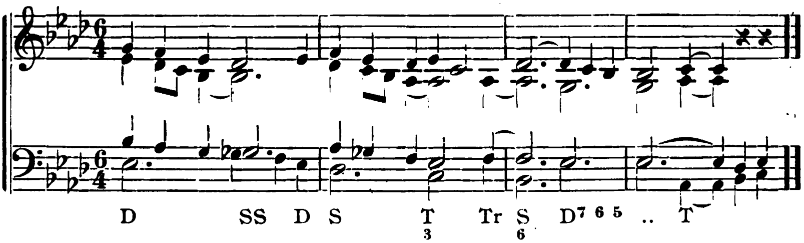
Wagner. Meistersinger, I Act, 2d scene.

Ex. 72.



Ex. 73.

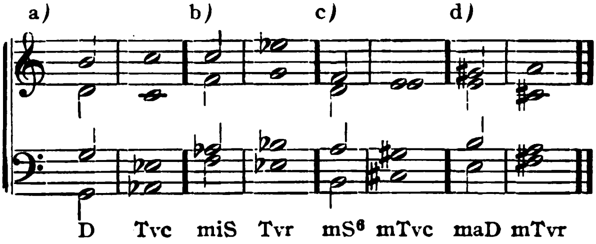
Wagner. Parsifal, I Act, 1st scene.



E. THE TONIC VARIANT (Tv, mTv) AND RELATIVES (Tvr, Tvc, mTvr, mTvc.)

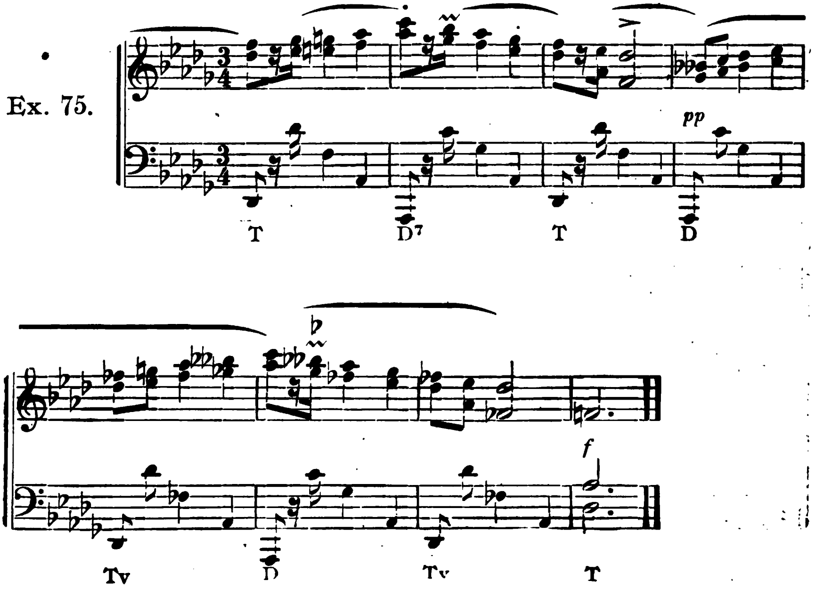
§ 61. The chromatic alteration of the third of the T produces a chord of the opposite mode, in C-major key the c-minor chord, in A-minor key the a-major chord. It is indicated by Tv and mTv respectively. Most beautiful effects are obtained by the use of the variants of the **T.** For the major key it is similar, in effect, to a cheerful landscape made dark and gloomy by a passing cloud. In the minor key the effect is the reverse, like a desolate scene made entrancing by sunshine. By using the variant of the tonic, the darkness in major, or brightness in minor, is cast over the entire key, and does not spread only over a part of the key, as with other chords (miS, SS, maD etc). The Tvr (Tonic variant relative) in C major is e♭ major, the Tvc (Tonic variant correlative) is a♭ major chord. The latter is frequently used for deceptive closes. The Tvr can be used for deceptive closes also. The mTvr (minor Tonic variant relative) in A minor is f♯m, the mTvc (minor Tonic variant correlative) is c♯m chord.

Ex. 74.



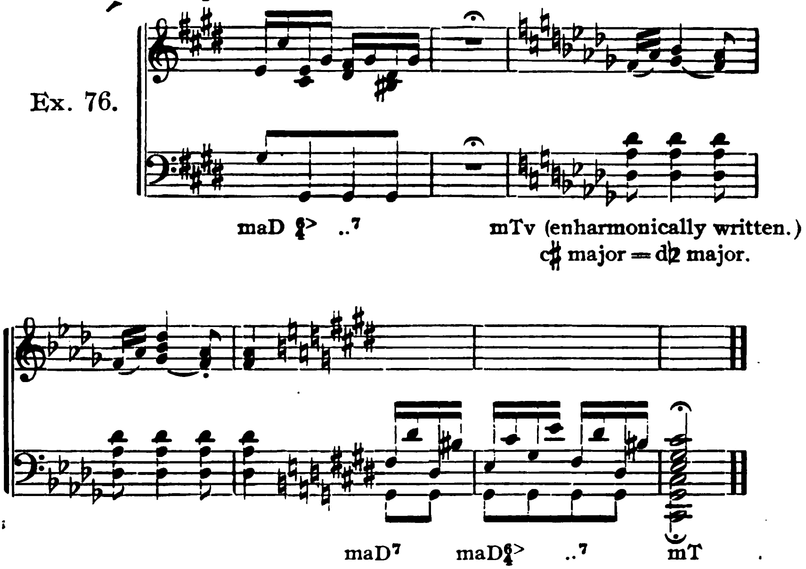
Chopin. Op. 30, No. 3, Mazurka.

Ex. 75.



Schubert. Op. 94, No. 4, Moments musicals.

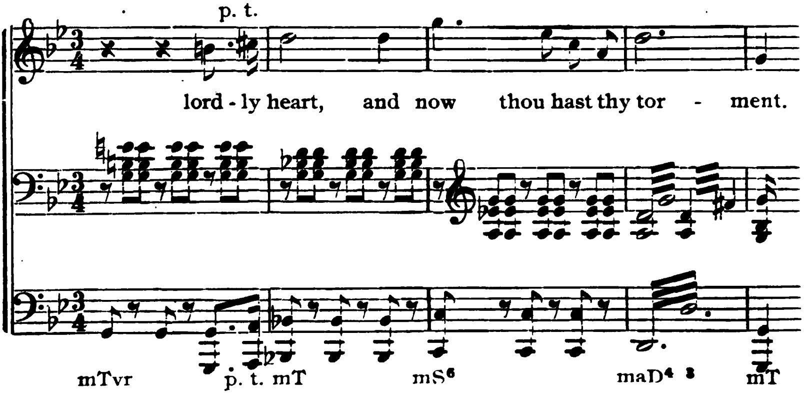
Ex. 76.



Sometimes composers write chords enharmonically changed. It is done to make the reading easier, if it is not done for the sake of modulation. In the last example, which is in C♯-minor, Schubert has a whole (middle) movement in D♭ major key, instead of C♯-major, and bringing a bit of it at the end of the piece again, he wrote it with the same signature it appeared at first.

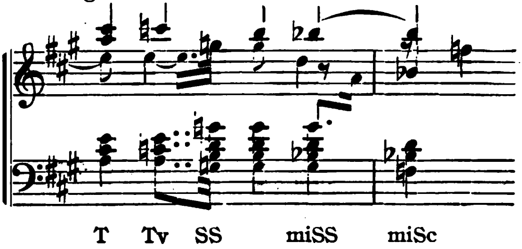
Ex. 77.

Schubert. Dying Strains. No. 8. Atlas.



Wagner. Lohengrin Prelude.

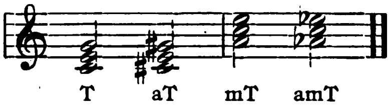
Ex. 78.



See next paragraph for other examples of relatives of the tonic.

F. THE aT, aS, aD, amiS, amT, amS, amD AND amaD, THEIR RELATIVES AND CORRELATIVES.

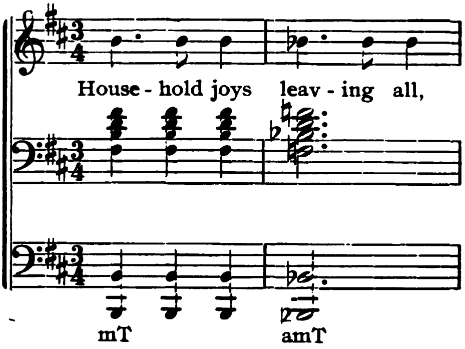
§ 62. A new series of chords can be developed within the key by a certain simultaneous alteration of the notes forming the fifths of the principal chord. For example, a major chord is changed into a minor chord by chromatically raising the notes forming the interval of the fifth (the 1 and 5, the "outer" tones); a minor chord is changed into a major chord by chromatically lowering the notes forming the fifth.



For short, we will call these chords "altered" Tonic and "altered" minor Tonic chords. The tone which is the third of each chord forms the bond (connecting link) of the two chords. These chords are used, as the following illustrations will show.

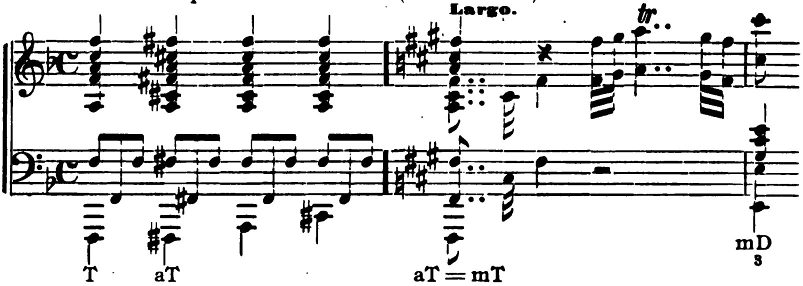
Schubert. Dying Strains. No. 6. Afar.

Ex. 79.



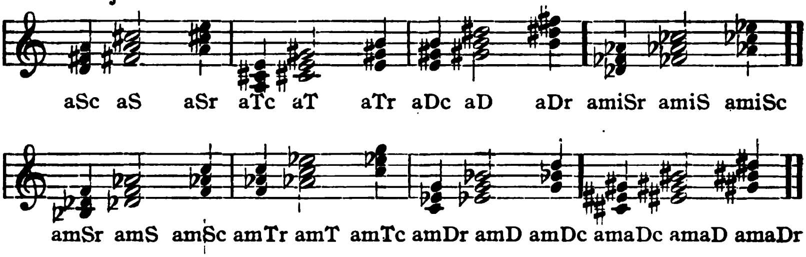
Ex. 80.

Schubert. Op. 103. Fantaisie. (Four hands.)



These chords have their relatives too, and appear more frequently than some would suppose.

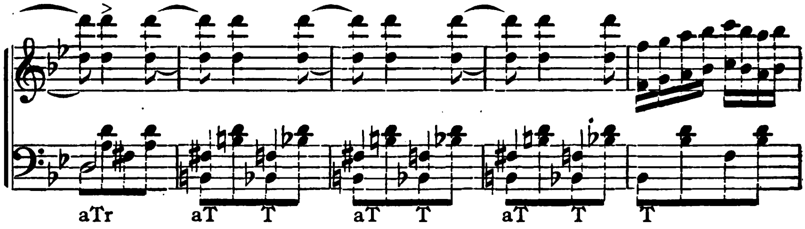
C-major.



This series of chords gives most exquisite tints to tonal harmony.

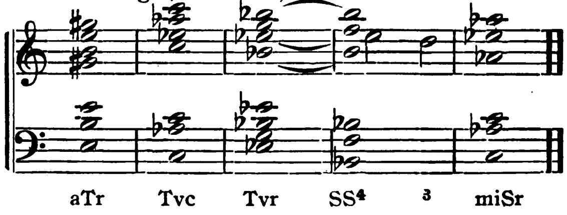
Ex. 81.

Liszt. Rhapsodie Hongroise VI.



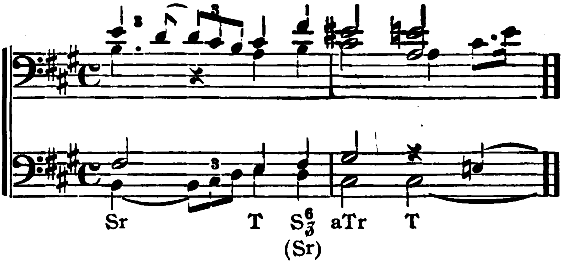
Wagner. Meistersinger, Third act, Scene 4.

Ex 82.



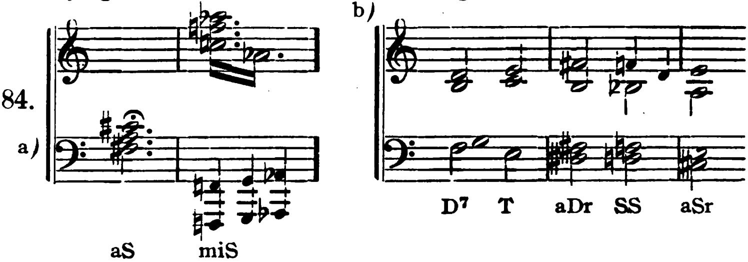
Wagner. Lohengrin, Act I, Scene 3.

Ex. 83.



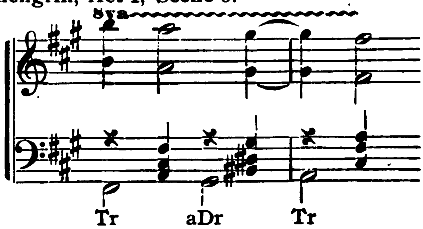
Wagner. Flying Dutchman, Act III, No. 13. Rheingold, Fourth Scene.

Ex. 84.

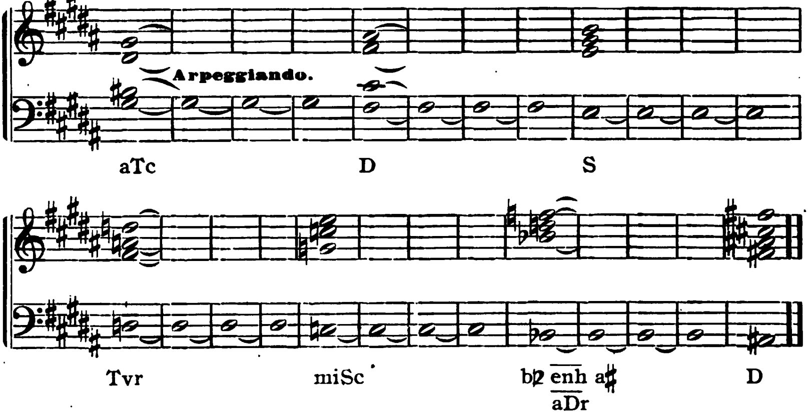


Wagner. Lohengrin, Act I, Scene 3.

Ex. 85.

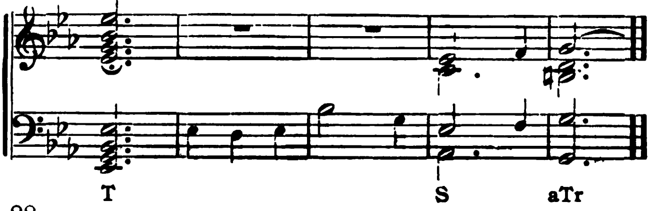


Ex. 86. Liszt. Dante-Symphonie.



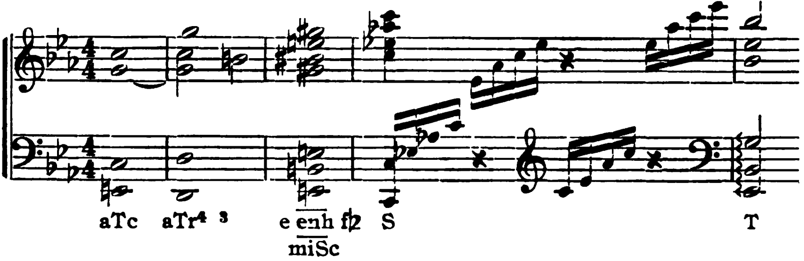
Wagner. Lohengrin, Act I, Scene 3.

Ex. 87.



Ex. 88.

Wagner. Meistersinger, Act III, Second scene.



§ 63. **CLOSES OR CADENCES,** are successions of chords leading to a momentary or complete end of a phrase, section or movement.

A COMPLETE CLOSE is a close on the Tonic at the end of a period or section.

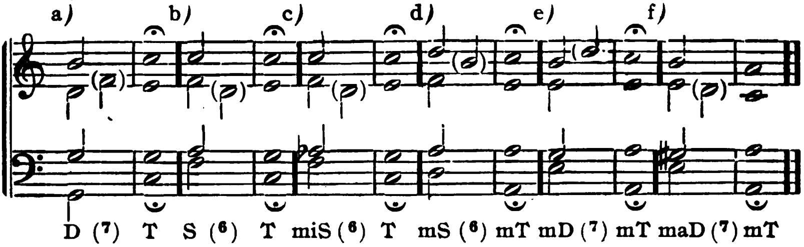
A HALF CLOSE is a close on the Dominant. In a wider sense also on the Subdominant, and all chords derived from either Dominant.

A DECEPTIVE CLOSE is a temporary close on a relative or correlative chord of the Tonic, and leads to a new cadence. This classification conforms in the main to the terminology generally accepted, but it is far more comprehensive.

COMPLETE CLOSES

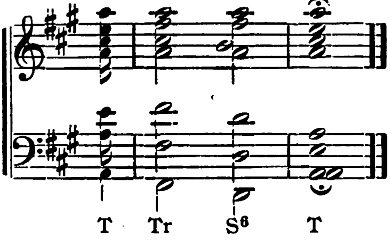
from the Dominant with or without the seventh, and from the Subdominant with or without the sixth.

Ex. 89.



Th. Dubois. **Postlude in A for Organ.**

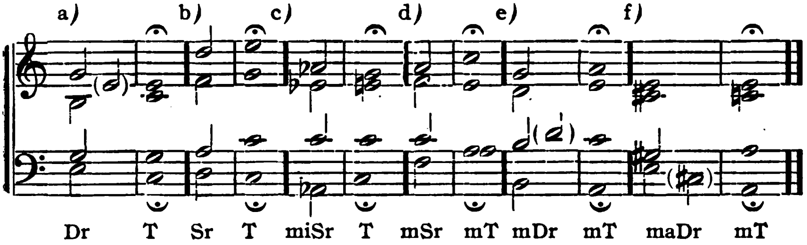
Ex. 90.



Schumann's Toccata, Op. 7, closes S | miS ..^{6} | $\overset{3}{T}$.

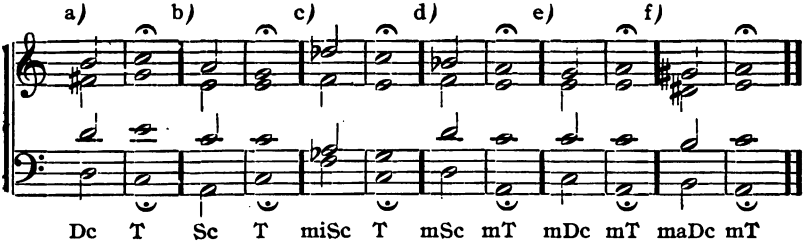
Complete closes are also possible from the relatives of the Dominants.

Ex. 91.



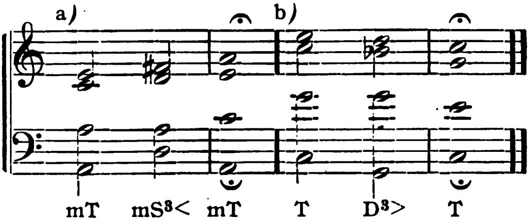
Complete closes are possible from the correlatives of the Dominants.

Ex. 92.



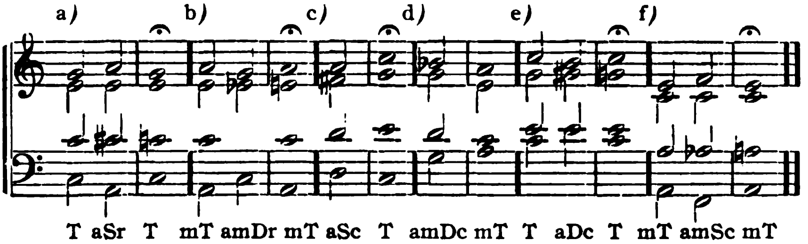
It is also possible to close elliptically from the $mS^3<$ or $D^3>$ (skipping over the expected maD or miS) to the Tonic.

Ex. 93.



Other closes would be from the aD, aS, amiS, amS, amD, amaD and their relatives to the T. A few are given below, the student can work out the remaining ones.

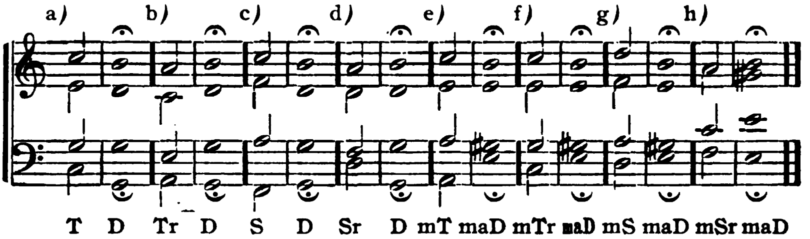
Ex. 94.



HALF CLOSES.

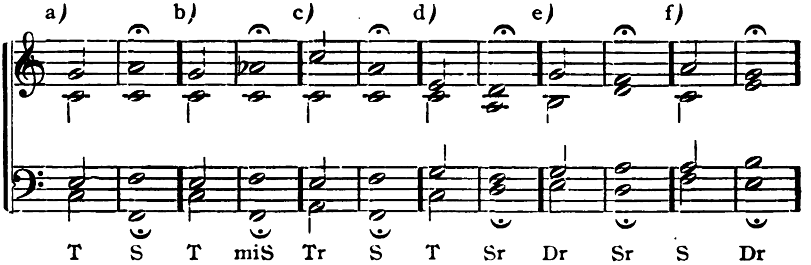
The term half close has usually been restricted to endings on the major Dominant, but there is really no binding reason for this.

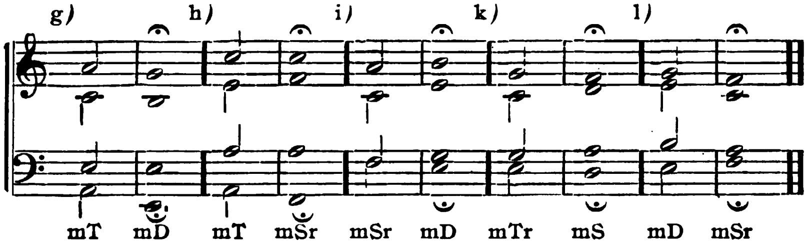
Ex. 95.



This selection shows what is generally meant by a half close. It is certain that any dominant or any relative or correlative chord of either dominant may become the bearer of a half close (principal subdivision, close of a part). The following small selection will show a further number of good effects.

Ex. 96.

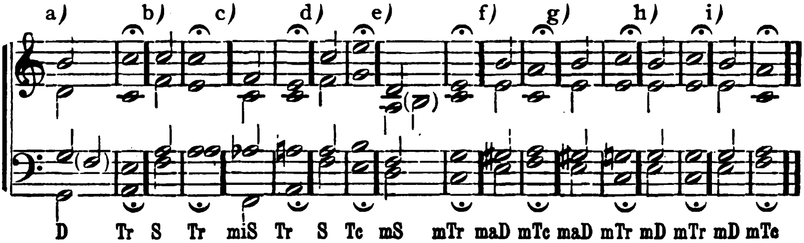




DECEPTIVE CLOSES.

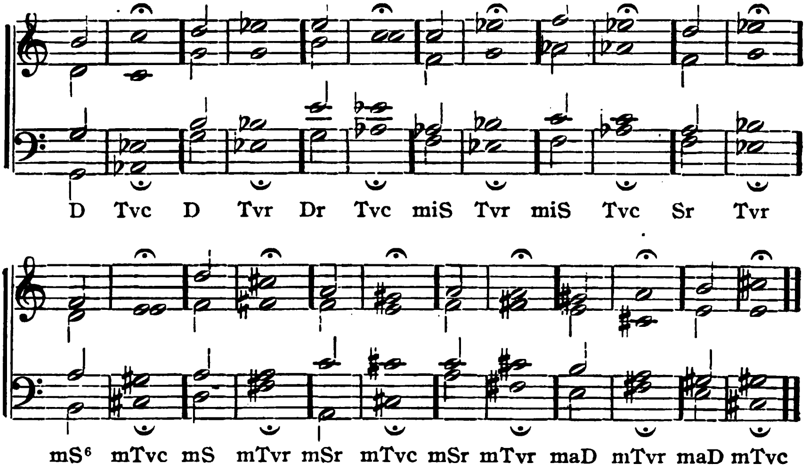
We have already explained some deceptive closes in § 39 and §50. They are endings in which a Tonic relative or correlative takes the place of the expected Tonic.

Ex. 97.



A series of new possible forms of deceptive closes is gained by the use of the relative and correlative chords of the tonic variant.

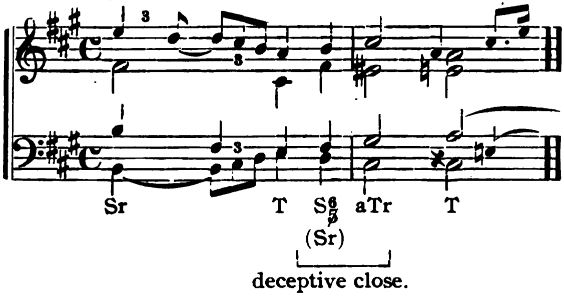
Ex. 98.


D Tvc D Tvr Dr Tvc miS Tvr miS Tvc Sr Tvr
mS⁶ mTvc mS mTvr mSr mTvc mSr mTvr maD mTvr maD mTvc

The last deceptive closes give rise to difficulties in retaining the key and come near being modulations. In order to counteract this impression, they necessitate the use of chords of the mS$^{3<}$ or D$^{3>}$ for the return over the maD or miS and the earliest possible regaining of the mD or S or their relative chords. Numerous closes possible from, and to, the aS, amiS, aD, aT, amS, amD, amaD and amT, the student will know how to work out and analyse according to the above comprehensive classification.

Wagner. Lohengrin, Act 1, scene 3.

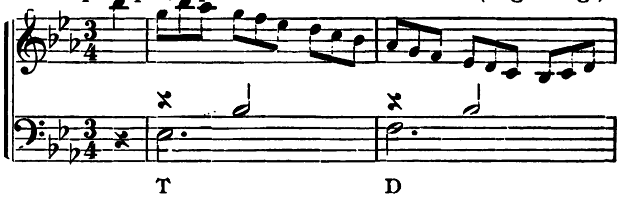
Ex. 99.



In old polyphonic music it was essential that every composition should end with a major chord, even though the key in which it was written was minor. The third thus made major by an accidental sharp or natural was called the "Tierce de Picardie." Even Bach conscientiously observed the custom. It is still a favorite practice to close a minor piece with the mTv. Schubert, who was a great innovator in Harmony, attempted the opposite. His Impromptu, Op. 90, No. 2, begins in E♭ major, thus:

Schubert. Impromptu, Op. 90. II. (Beginning.)

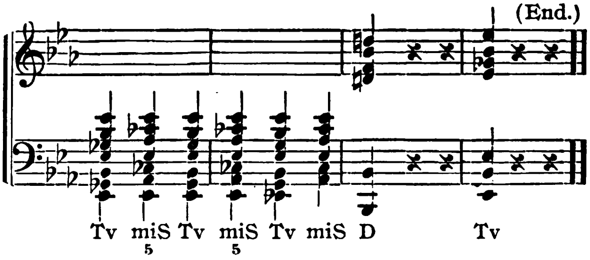
Ex. 100.



and ends in E♭ minor thus:

(End.)

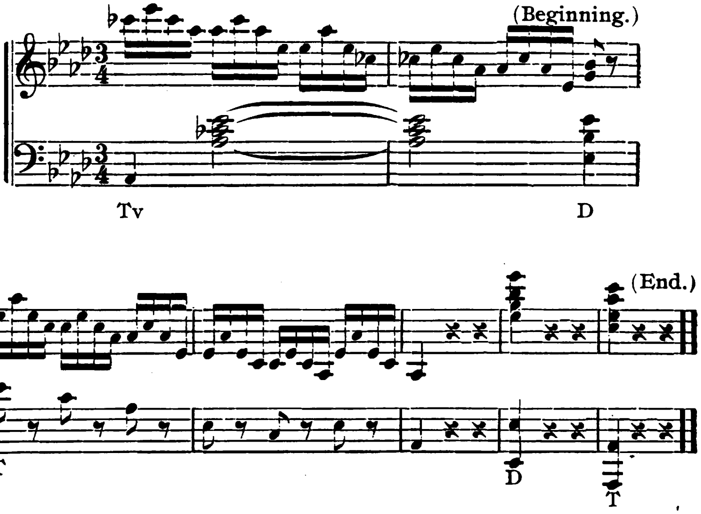
Ex. 101.



Schubert's A♭ major Impromptu Op. 90, No. 4, ends in A♭ major but begins with the Tv, A♭ minor.

Schubert. Impromptu, Op. 90, IV.

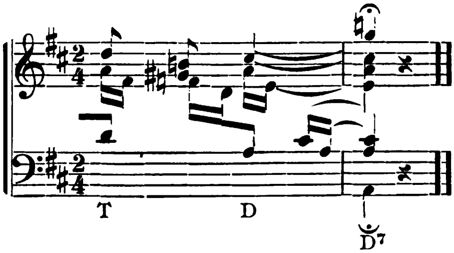
Ex. 102.



Sometimes composers see fit to end a piece on a Half close, desiring to leave that impression of unfinishedness upon the hearer. They even end with a discord (D^7), as Schumann has done:

Schumann. Op. 15, Kinderscenen. No. 4, Entreating child.

Ex. 103.

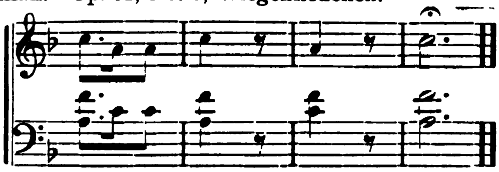


Chopin's Mazurka Op. 30, No. 2, is written with B minor key signature and ends on F♯ minor chord, the mD. It would be best to consider this piece as being in the key of F♯ minor, and one in which special stress has been laid upon the Subdominant side of the key. That this can be done the paragraph on "Intermediate Cadences" will make clear.

A piece can also close with the 3 in the bass:

Th. Kullak. Op. 62, No. 5, Wiegenliedchen.

Ex. 104.

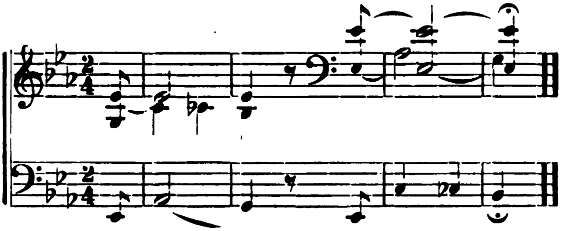


Liszt ends his "Traurige Mönch" with the 3 of the C-minor chord in the bass.

Even the close with the 5 in the bass has been ventured.

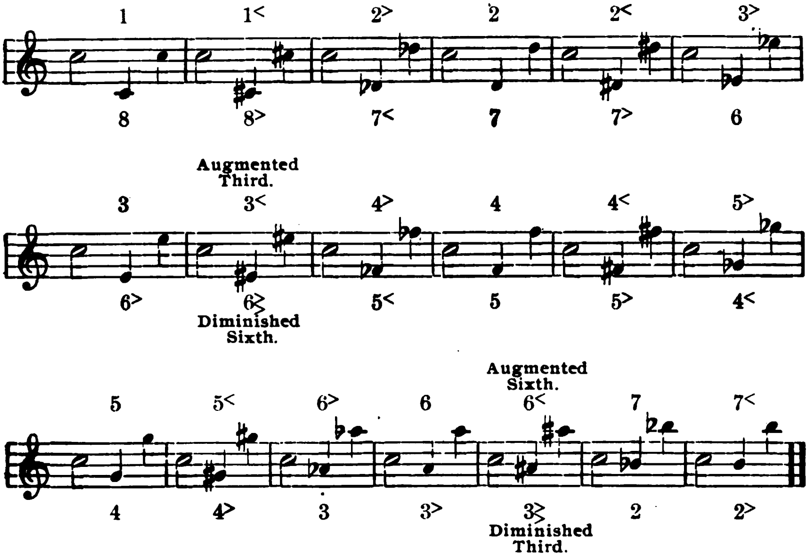
Schumann. Op. 7, Kreisleriana.

Ex. 105.



A composer can begin and end with any chord he chooses. When a piece closes with the T, it naturally conforms to the proverb "all's well that ends well." Where a composer merely "quits," there the listener has to find the close for himself.

§ 64. CLASSIFICATION OF CHORD CONNECTIONS (Concluded). The object of arranging chord successions into classes is to point out the inherent and latent force contained in them, and their various technical difficulties, to the student. The guiding points for all chord connections are: the avoidance of doubling the thirds of the principal chords in parallel motion; the avoidance of all augmented intervals; the possibility of doubling the thirds of all relative and correlative chords; the use of sustained tones, half steps and chromatic steps where feasible. The following review contains nearly all chord connections possible, especially if we abstain from connecting extremely distantly related chords, and do not consider their connection with the intermediate cadences (see § 74). It is surprising to see how many chords can be conceived as belonging to the key and can be used without inducing a modulation. In this labyrinth of chord successions the tonal functions tell what office and importance the chords have in the key. The entire number of chords is really to be reduced to only three groups. They are either Tonic, Dominant or Subdominant harmonies, as the letters of the tonal functions indicate. We name the chord connections according to the intervals the fundamental notes produce, and mark the mode of the chords. By inverting the intervals all chord connections can be included within the interval of a tritone (augmented fourth). A fifth is but a fourth, when inverted. The following table will explain this. The inversion of an interval is the placing of the lower tone an octave above the original upper tone, or vice versa. (See also § 4.)



To illustrate the plan of classification again, we will take c and d, major or minor chords, for example. Their fundamental tones form a Whole tone step; but there are different kinds of Whole tone steps in chord connections, because the major or minor chords can succeed each other, thus:

a) major to major chord, c—d.
b) major to minor chord, c—dm.
c) minor to minor chord, cm—dm.
d) minor to major chord, cm—d.

Every succession has its peculiarities, inherent force and meaning. The succession c minor to b♭ major for example, is not classed as a seventh step, because its explanation will be found in its inversion, the Whole tone step, major to minor chord, and thus in all similar cases. Now follows the list of chord connections with various remarks.

1. *Change of Mode* (*of Chords*). Major to minor chord, or vice versa. (§ 25.) Easily understood. Occurs in the major key between S—miS, also Sr—DD, D—D$^{3>}$, T—Tv, etc. Occurs in the minor key between mD—maD, mDr—mSS, mS—mS$^{3<}$, mT—mTv, etc.

2. *Chromatic step.* (Enharmonic with Half tone step.) *a*) Major to major chord. miSc—DD, mSc—maDD, etc. Ascending these successions produce beautiful effects of sudden brightness, descending of sudden darkness.
   b) Major to minor chord. See § 51, further possibilities are SS—Dc, T—aT, mSc—mDD, amT—mT, etc.
   c) Minor to minor. Compare 2 a) above. miSS—Dc, miS—aS, mSS—maDc, etc.
   d) Minor to major chord. amiSr—aSc or DD, miSS—aDr, amDc or mSS—amaDr, amSr—maDD, etc.

3. *Half Tone step.* (Enharmonic with Chromatic step.) *a*) Major to major chord. (§ 54 and 50.) D—Tvc, maDD—mDc or mTr, mDr—amT, etc.
   b) Major to minor chord. A very difficult step in tonal harmony. T—amiSr, D—amiSc, amaDr—mT, amaDc—mS, etc.
   c) Minor to minor chord. (§ 54.) mTvc—mS, Sc or Tr—miSS, Dc—Tv, aT—Sr, etc.
   d) Minor to major chord. (§ 43.) $D^{3>}$—miSr, Tr—SS, Tv—miSc, Sr—Tvr, maDr—m$S^{3<}$, mDD—mTr, maDc—mTv, mTvr—mDr, etc.

4. *Whole Tone step.* (Enharmonic with Diminished Third step. *a*) Major to major chord. (§ 22,). This chord succession makes the impression of a S and D following each other, and creates the desire of having the Tonic appear. The whole tone step is really a double fifth step, c—(g)—d. Usually a chord follows which is related to one of the two chords. But chords can also be brought in a series of whole tone progressions and produce beautiful effects as the the excerpt of Liszt's Dante Symphony in § 62 shows. miSr—SS, SS—T, T—DD, Tvc—SS, miSc—Tvr, Tvr—S, T—aSc, m$S^{3<}$—maD, mTr—m$S^{3<}$, amT—mSc, etc.
   b) Major to minor chord. (§ 42.) S—$D^{3>}$, DD—Tc or Dr, Tvr—miS, m$S^{3<}$—mD, mTc or mSr—mSS, maD—mTvr, etc.
   c) Minor to minor chord. (§ 22.) Compare 4 a). miS—$D^{3>}$, $D^{3>}$—Tr, Tv—Sr, mT—mDD, mSS—mT, mD—mTvr, amDc—mT, etc.
   d) Minor to major chord. (§ 24.) Makes the impression of a minor S followed by a major D, and naturally creates the desire of having the skipped chord (the T of both chords) follow. miSS—T, Tv—DD, mT—maDD, mSS—mTv, etc.

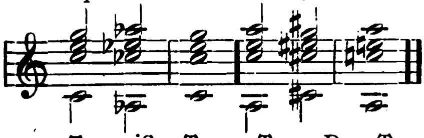
5. *Augmented Second step.* (Enharmonic with Minor Third step.) *a*) Major to major chord. amiS—D, amT—maDD, etc.
   b) Major to minor chord. (§ 55.) S—aD, mSc—mTvc, amT—mDD, etc.
   c) Minor to minor chord. amiSr—Tc or Dr, miSS—aT, mS—amaD, etc.
   d) Minor to major chord. Certainly rare. amiSc—aDr, amTr—amaDr, etc.

6. *Diminished Third step.* (Enharmonic with Whole tone step.) *a*) Major to major chord. DD—amiS, amaDr—mSc, maDD—amS, etc.
   b) Major to minor chord. aDr—amiSr, amaDr—amSr.
   c) Minor to minor chord. aD—miSS, amaD—mSS, etc.
   d) Minor to major chord. (§ 57.) aD—SS, mTvr—amT, etc.

7. *Minor Third step.* (Enharmonic with Augmented Second step.) *a*) Major to major chord. (§ 45.) DD—S, T—Tvr, aTc or aSr—T, aTr—D, SS—miSc, mSc,—amS, etc.
   b) Major to minor chord. Of good effect, leads like the Whole tone step back to the intermediate chord that was skipped. D—miSS, DD—miS, maDD—mS, maD—mSS, SS—miSc, maDc—mDD, etc.
   c) Minor to minor chord. (§ 45.) mD—miSS, aT—Tc or Dr, Tc or Dr —$D^{3>}$, Sc or Tr—Tv, maDc—mDD, etc.
   d) Minor to major chord. (§ 40.) miSS—miSc, Dc—DD, maDc—maDD, mSS—mSc, etc.

8. *Third step.* (Enharmonic with Diminished Fourth step.) *a*) Major to major chord. (§ 52.) SS—DD, Tvc—T, Tvr—D, T—aTr or aDc, mDr—maDD, mTc or mSr—mTv, mSc—$mS^{3<}$, etc.
   b) Major to minor chord. (§ 41.) SS—Sr, mDr—mDD, etc.
   c) Minor to minor chord. (§ 52) miSS—Sr, Tv—Tc or Dr, $D^{3>}$—Dc, mSS—mDD, mT—mTvc, mS—mTvr, amTr or amSc—mT, etc.
   d) Minor to major chord. miSS—DD, amiSc—T, miS—aSr, mSS—maDD, mT—amaDc, amDr—maD, etc.

These far reaching chord connections are usually employed for modulations. This step can occur also from, and to, the tonic as a close.



But generally the relative of the tonic follows here.

9. *Augmented Third step.* (Enharmonic with Fourth step.) *a*) Major to major chord. amiS—aSr, amT—amaDc, etc.
   b) Major to minor chord. amiS—Sc or Tr, miSc—aS, mDc or mTr—amaD, amD—maDc, etc.
   c) Minor to minor chord. amiSc—aT, etc.
   d) Minor to major chord. Possible with intermediate cadences only.
10. *Diminished Fourth step.* (Enharmonic with Third step.) *a*) Major to major chord. T—amiS, aTr or aDc—Tvc, maD—amT, etc.
   b) Major to minor chord. Undoubtedly rare. aTc—amiSr, etc.
   c) Minor to minor chord. aT—miS, amaD—mT, maDr—amTr or amSc, etc.
   d) Minor to major chord. (§ 53.) Tc or Dr—Tvc, Tv—amiS, aT—S, mTvc—mTc or mSr, amaD—mTv, mD—amT, etc.
11. *Fourth step.* (Enharmonic with Augmented Third step.) *a*) Major to major chord. (§ 21.) S—SS, $S^{3<}$—mDr, maDD—maD, maD—mTv, etc.
   b) Major to minor chord. (§ 23.) S—miSS, D—Tv, maDD—mD, mTv—mS, etc.
   c) Minor to minor chord. (§ 21.) Sr—$D^{3>}$, miS—miSS, Tv—miS, mDD—mD, etc.
   d) Minor to major chord. (§ 44.) This chord connection is usually understood as having the relationship of Sr—D (mDr—mS), and circumscribing the tonic thus, it is an important means of modulation. The step occurs also as: $D^{3>}$—T, miS—SS, Sc or Tr—DD, miSS—Tvr, mT—$mS^{3<}$, mDD—maD, mSS—mDc or mTr, mTvr—maDD, etc.
12. *Tritone step.* *a*) Major to major chord. (§ 56.) This chord connection stands in the relationship of a minor S and major D (major or minor key), consequently makes a big sweep, and will lead back to an intermediate chord. Like all far reaching steps it is frequently employed in modulations. miSr—DD, Tvc—DD, SS—aTr or aDc, mTc or mSr—maDD, etc.
   b) Major to minor chord. (§ 46.) miSc—$D^{3>}$, SS—Tc or Dr, Tvc—Sr. Tvr—Tr or Sc, T—aS, $mS^{3<}$—maDc, mTc or mSr—mDD, mDr—mTvc, mTr or mDc—mTvr, amD—mT, etc.
   c) Minor to minor chord. (§ 56.) miSS—Tc or Dr, mSS—maDr, mSS—mTvc, amTr or amSc—mDD, etc.
   d) Minor to major chord. amiSr—D, miSS—aTr or aDc, mS—amaDr, amSr—maD, etc. Very distantly related chords. The excursion from the relatives of the tonic ought not be without an object. These chord successions are used more as a means of modulation than as movements within tonal harmony.
13. *Fifth step.* (§ 18.) The most readily understood step of all. Compare also with Fourth step § 21. As can be seen from the foregoing list, a

great number of chords foreign to the scale may be introduced into the key, without changing it. Chords closely related can be readily exchanged and follow one another, but when chords distantly related are brought after each other, then they are usually succeeded by an intermediate chord, one that is related to both.

EXERCISES.

The following exercises are not for figuration, but a change of position may occasionally be employed for the sake of gaining a smoother progression to the next chord. Modulations have been avoided in order to be better able to survey the extensive relationship of chords.

(123) ₵ : T D$^{3>}$ | miS ..^{6} | T amiSc | T $\underset{3}{..}$ |
S Sr | miS .. | D$^{6}_{4}$ $^{5}_{3}$ | T

(124) $\frac{4}{4}$: mT mTr mSr mT | mS mS$^{3<}$ mDD maDD |
mD mDr mDc mSS | mS .. mDr amDc |
mT mTvc maD maDr | mSS mSc mS m$\overset{3}{\text{T}}$ |
maDc mS maD$^{6>}_{4}$ ..^{7} | mT

(125) $\frac{6}{8}$: T ♪ | D ♩ Tr ♪ Sr ♩ etc. DD | D ..^{7} Tvc miS |
D$^{6}_{4}$ .. D$^{5}_{3}$ ..^{7} | T Tvr T

(126) 𝄴 : mT 𝅗𝅥 mTv ♩ mSr ♩ | mSc etc. .. mDD | maDD maD ..^{7} |
mT amDr .. | mT mTv maD | mTvr maDD .. |
maD mS^{6} maD^{7} | mT 𝅝

(127) $\frac{3}{2}$: miS Dr Tr | miSc miS .. | DD D$^{6}_{4}$ $^{5}_{3}$ |
T 𝅝 aDc 𝅗𝅥 | T Tc T | D D$^{3>}$ miSr | miS^{6} D$^{6}_{4}$ ..^{7} | T 𝅝

(128) $\frac{3}{4}$: mT mS$^{3<}$ mDD maDc | maD mSc mS$^{3<}$ maDr |
♩ ♪. 𝅘𝅥𝅯 | ♩ ♫ |
mT maDD mD maD^7 | mT
♩ ♪. ♪ | 𝅗𝅥.

(129) 𝄴 : T Tr Sr DD | D Dc D$^{3>}$ miSr |
T miSS S miS^6 | $\overset{3}{T}$ D $\overset{1}{T}$ 𝅗𝅥

(130) $\frac{3}{4}$: mT mTc mS amSr | maDD maD mT mSc mSS |
♩ ♩ ♫ | ♪. ♪ ♩ ♫ |
mS ..^{6} mTvc maD | mT mTvr mT
♫ ♩ ♩ | ♪. ♪ 𝅗𝅥.

(131) $\frac{3}{4}$: T Tv Dr | D Dc SS | miSS miS ..^{6} | T aSr |
𝅗𝅥 ♩
T Tv miSc | Tvc Tvr miSc | miSr miS D^7 | T 𝅗𝅥.

(132) $\frac{6}{8}$: maD | mT maD^7 mSr mT | mTr maD maDc .. |
♪ | ♩ ♪ ♩ etc.
mSS mS D ..^{7} | mT .. maD mDD | maD .. mT mTr |
mT .. amSc .. | mT mS^6 D$_4^{6>}$ ^{7} | mT

(133) $\frac{4}{4}$: T D^7 Tr T | D D$^{3>}$ SS miSS | S Sr Sc DD |
D Sr aSc | T Tvc miS miSr | DD Dc D T |
𝅗𝅥
miSc Dc D miS | T

(134) $\frac{2}{4}$: mT mS$^{3<}$ | maD ..^{7} | mT amaDc | mT .. |
maD maDD | mSc mS^6 | maD$_4^{6>}$ $\frac{5}{3}$ | mT

In the preceding paragraphs the most daring chord connections were explained. We went as far as it is at all possible in the connection of chords related to one and the same tonic. A great many of the chord successions considered in these paragraphs usually induce modulation. The greatest power of expression in harmony does not consist in the frequent change of key, but rather in extending the boundaries of the key as modern composers have done. Our view of tonal harmony has now become extensive, and the following chapters lead to more common chord formations and will bring easier work.

CHAPTER V.

DISCORDS. Concluded.

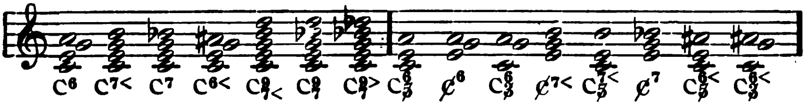
§ 65. THE THEORY OF DISCORDS. We have already become acquainted with some dissonant chords. We will now arrange them into groups, according to certain principles, because then other similar formations will be understood immediately. The principal and characteristic discords (the Dominants with their sevenths and the Subdominants with their sixths) have been explained in § 28—30. Dissonance is the interference with the consonance of a major or minor chord, and the result a striving to regain that purity again. Discords are full of impulse and spirit, and produce a restless craving in the mind. The consonance of a major or minor chord is disturbed:

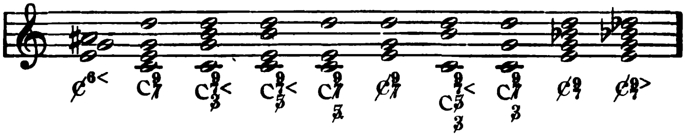
a) by the *addition* of tones foreign to the complete chord.
b) by the *delaying* of chord tones by means of neighbor tones foreign to the chord (Suspensions.) The foreign tones enter on the accented beat.
c) by *moving* a step of a second (half or whole tone step) *from* a chord tone (passing tones and changing or auxiliary tones.) The foreign tone enters on the unaccented beat or part of a beat, and is merely an insertion between two chord tones. These are the most easily intelligible but weakest kind of discords, so-called "passing dissonances," "passing discords" or "passing harmonies." We have used them extensively in figuration exercises.
d) by *chromatic alteration* of chord tones (Altered chords.)

These four kinds of dissonant formations can be united in various ways in every major or minor chord, no matter what its function is in the key, whether T, D or S, or one of the relatives or correlatives of these.

A. **ADDED TONES.** Added tones to a major chord. The same formations are possible with the minor chord.

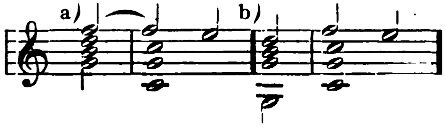
(With some tones of the chord omitted.)



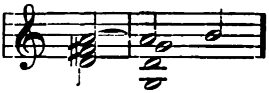


The tonic chord has no characteristic additional tone, like the D or S; it is the only one chord in the key that always remains pure. Discords produced by adding tones to the tonic must be looked upon as accidental formations; the added tone may be taken (anticipated) from the succeeding harmony or lead degree-wise to tones of the following chord.

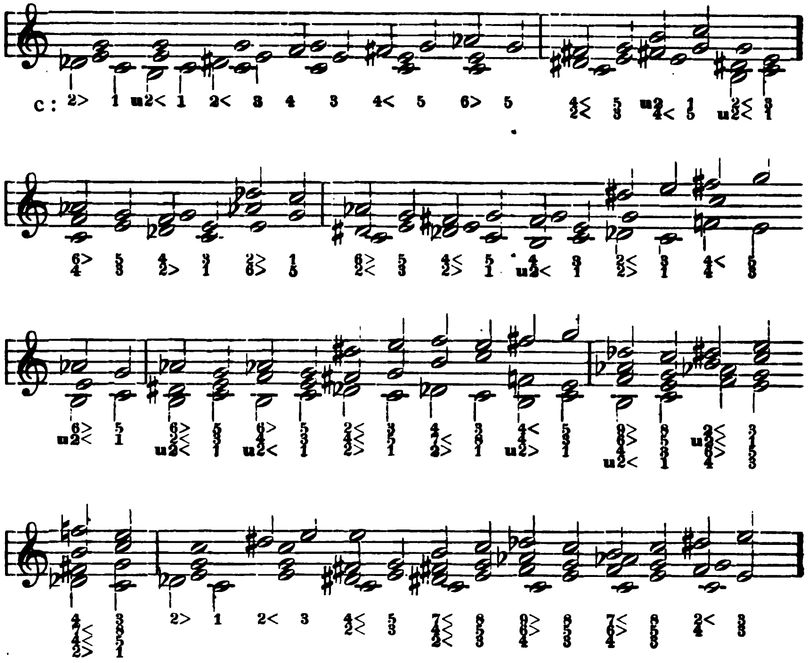
B. **SUSPENSIONS.** Suspension is the substitution of a neighbor tone (a whole or half step) above or below in place of a tone belonging to a consonant chord, to which the suspended tone afterward proceeds. Suspension chords are therefore always thought of in connection with what follows. The suspension is either prepared (when the dissonant tone is tied a) from the proceeding chord) or it appears free b).



In the prepared suspension the first occurrence of the tied note is called the "Preparation," the point of dissonance resulting from the motion of the other parts is called the "Percussion" of the discord, and the release of the dissonance, when the dissonant tone proceeds to its natural place in the new chord is called the "Resolution." Some theorists call prepared suspensions resolving upward "Retardations." Good effect, as regards the sound of prepared suspensions is certain so long as we avoid writing the sustained note simultaneously in the same octave-position as the chord tone which it retards. Being of a melodic nature, unprepared whole tone or half tone suspensions from above or below are possible before any chord tone, but they are not of equal value. Half tone suspensions from below are always easily understood, those from above only when they use notes proper to the scale, or use nearly related chords. The student is warned against the misuse of suspensions foreign to the scale. Too much seasoning is apt to spoil the dish.

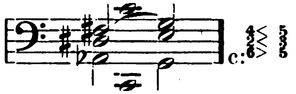


SUSPENSIONS in a major chord, can be used also without sharps and flats.

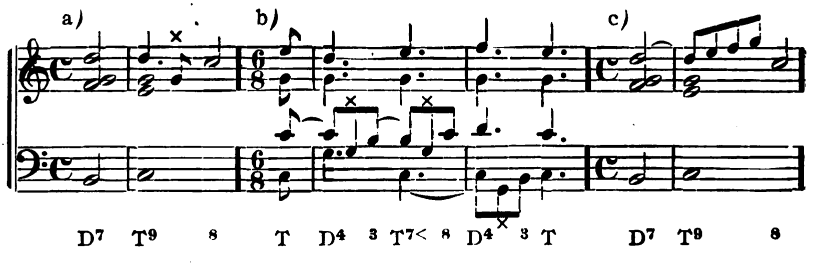


Schubert. Am Meere.

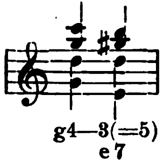
Ex. 106.



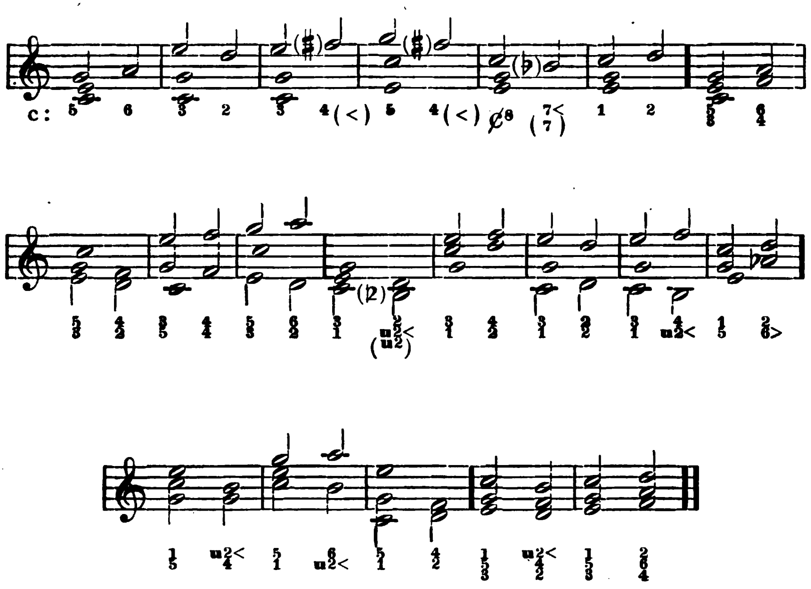
The resolution of a suspension may be deferred (disguised) by interpolating tones of the resolving chord between the suspension and its resolution a) and b). This is an ornamentation of the dissonance. The ornamentation may be varied in many ways c).



A *resolution by progression* occurs in the case of a suspension dissonance, when the progression of the part takes place which, had the chord remained, would have removed the dissonance, but at the same time several parts move, so that a new chord is produced. The suspension (fourth) c certainly goes to the third b, but the other parts move at the same time to the chord of the seventh on e.

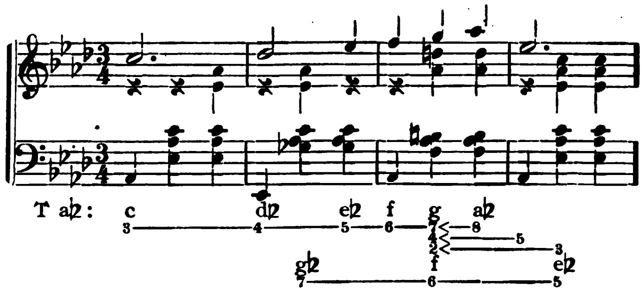


C. PASSING TONES. (Passing harmonies derived from a concord.)

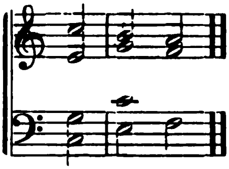


Tschaikowsky. Op. 37, No. 12. Christmas.

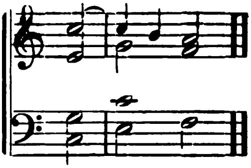
Ex. 107.



A passing tone may enter freely on a heavy beat with more or less good effect, for example :



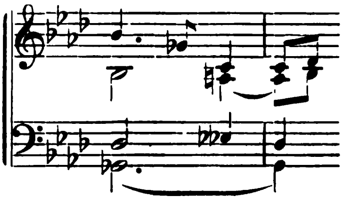
instead of being prepared thus :



Leading tones (that is tones a half step above or below any tone of a chord) can be used, irrespective of what precedes, and at any position relative to the rhythmic division of the music. In the following example a leading tone (c) is sustained as a suspension tone into the next chord. The auxiliary tone a♮ is sustained as a suspension, while e𝄫 acts as mere auxiliary tone between the two d♭'s.

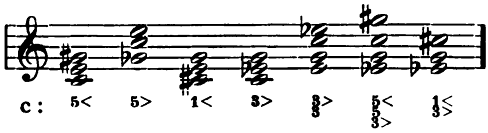
Wagner. Tristan and Isolde. Act II, scene 2.

Ex. 108.



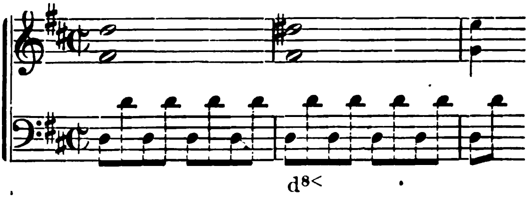
D. CHROMATIC ALTERATION OF CHORD TONES.

("Altered" chords ; also in four parts with the unchanged form of the altered chords.)

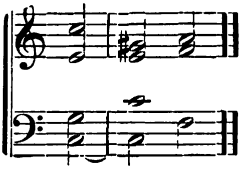


Mozart. Don Juan Overture.

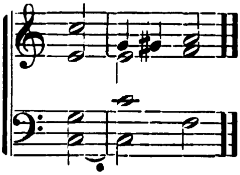
Ex. 109.



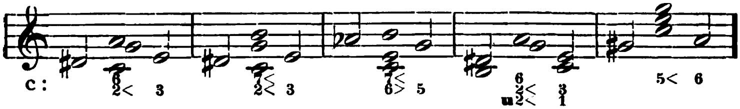
An altered tone may enter freely on a heavy beat with more or less good effect, for example:



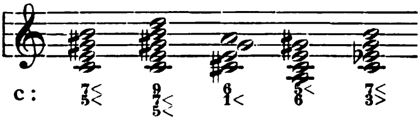
instead of being prepared thus:



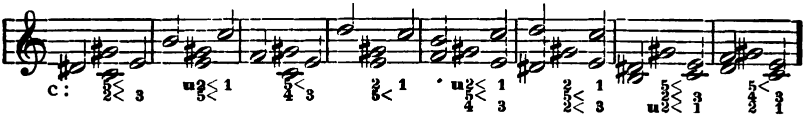
Combination of Added and Suspension Tones.



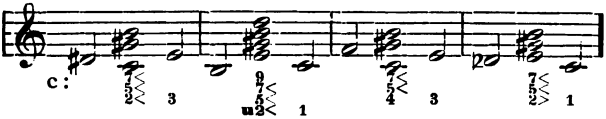
Combination of Added and Altered Tones.



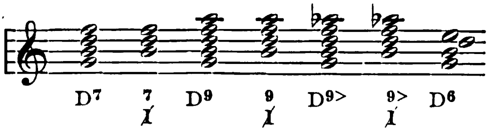
Combination of Suspension and Altered Tones.



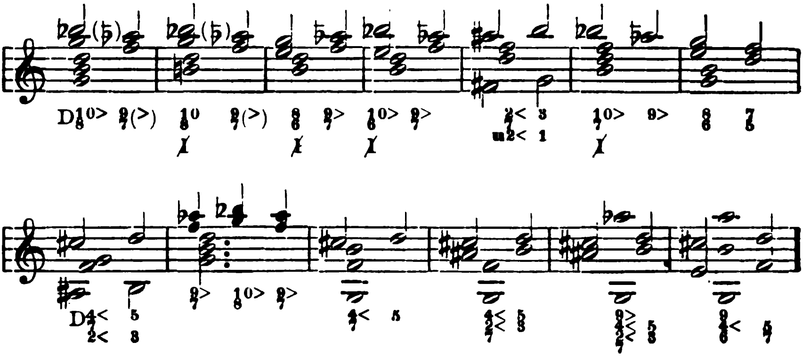
Combination of Added, Suspension and Altered Tones.



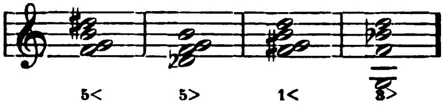
Additions to the D. (See § 66.)



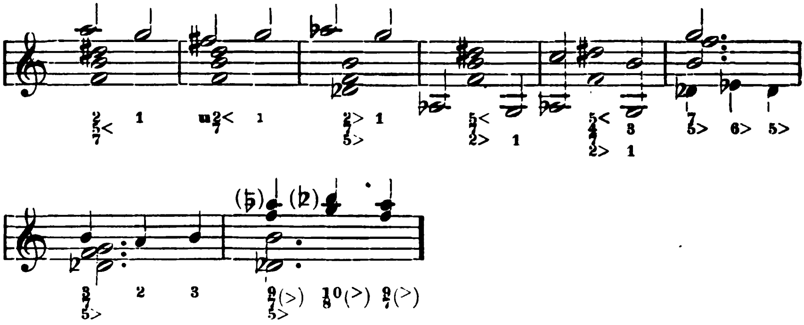
Suspensions in the D^7, D^9 and $D^{9>}$ (see § 66).



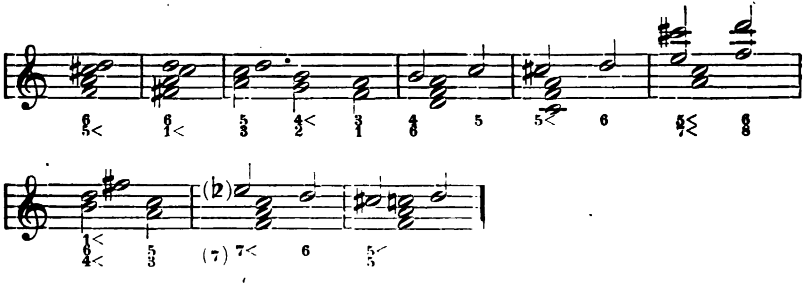
Altered Tones in the D^7.



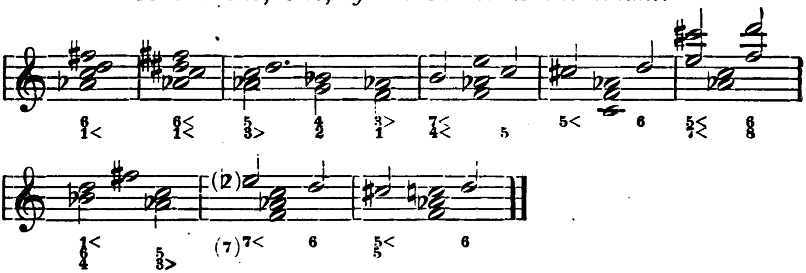
Alterations etc., in the D^7, $D^{9>}$ and D^9.



Alterations etc., of the Major Subdominant, S^6.



Alterations, etc., of the Minor Subdominant.



Only a very limited number of possibilities has been pointed out. Because it is exceedingly instructive, the student is requested to work out discordant formations of a number of major and minor chords of different keys. It will teach the student to unravel the most puzzling chord formations, and he will learn to refer them to their respective tonal functions in the key. Solely from this secure rock can any successful advance be made into the endless sea of possibilities. The student should from now on analyse the harmonic construction of compositions. At first, these should be simple songs, dances, lighter piano pieces, sonatinas, and gradually the works of Bach, Haydn, Mozart, Weber, Mendelssohn, Beethoven, Schubert, Schumann, Wagner, etc. should be thoroughly studied.

The following set of exercises is to be worked out in such a manner that every example, as much as possible, uses prepared dissonances on the accented beat. As before, work every example with figuration of the soprano, alto, tenor, bass and with figuration divided among the four parts. Remember the following in regard to the working out of these exercises:

A) For the ***preparation of the dissonance*** a chord tone entering on the preceding unaccented beat will serve (the chord tone can be a prime, third or fifth of any major or minor chord, also the sevenths of major or minor Dominant chords or the sixths of major or minor Subdominant chords).

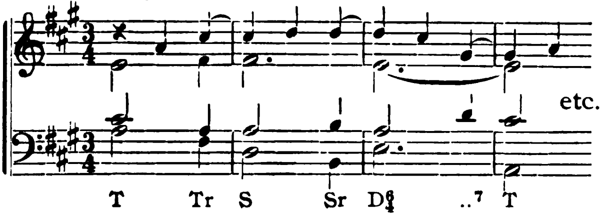
B) The *dissonance must move by step of a second.* Only the 6 of a major or minor S may proceed like a fundamental tone, when the S^6 *acts* like a D^7 of a D; see § 30.

C) When the part to be figured offers no opportunity for the use of a prepared dissonance on the accented beat, the syncopation is to be continued by *tying a note common to both chords.* In such a case the syncopated part need not necessarily move by step of a second, but if possible may move to a chord tone which will give a prepared dissonance for the next acceented beat.

D) In figuration of measures containing three beats, or where the figuration is to use three or more notes to each chord of the other parts, only the note immediately preceding the accented beat is to be tied. The syncopation is then only partial, as can be seen from the following short illustration.

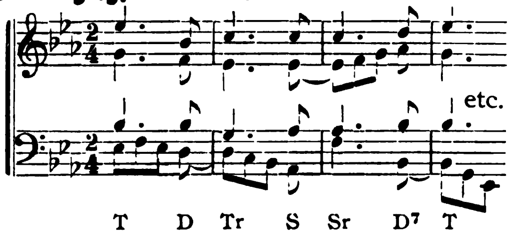
(Rhythm : ♩ | 𝅗𝅥 ♩)

Ex. 110.



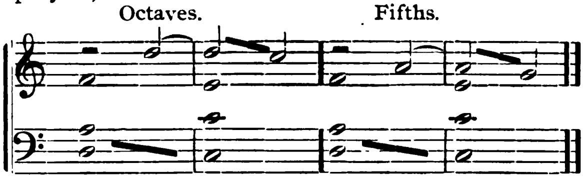
(Rhythm : ♪ | ♩. , divided figuration.)

Ex. 111.



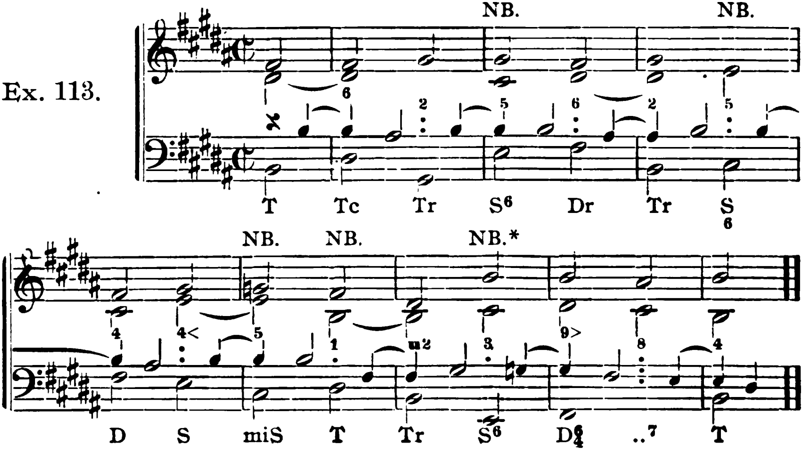
Because the syncopation merely delays a tone, consecutive octaves and consecutive fifths which would occur if the syncopation were not employed, are forbidden.

Ex. 112.



The following example will help to make the application of the rules clear. We will figurate the tenor part.

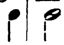
Ex. 113.


NB.
NB.
6 2 5 6 2 5
T Tc Tr S^{6} Dr Tr S 6
NB.
NB.
NB.*
4 4< 5 1 u2 3 9> 8 4
D S miS T Tr S^{6} D$^{6}_{4}$ ..^{7} T

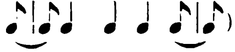
At NB., the syncopated tone on the accented beat is a chord member and a chord tone follows. At measures 2, 3 and 5, the same tone is used, but at measure 5, second beat, another tone, and at NB* a chromatic alteration of the third takes the place of a mere repetition (miS instead of S).

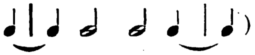
EXCERCISES. (For syncopated figuration.)

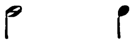
(135) 𝄵: D^7 | T Tr | miS T | D^6_4 ..^{7} | T Tc | D^6_4 ..^{7} |
Tvc miS | D S | T

(136) $\frac{3}{4}$: mS^6 | mT mTr | mD mT | mS$^{3<}$ maD | mTr mT |

maD mD | mDc mS | mS^6_5 maD | mT

(137) $\frac{2}{4}$: T | D^7 miS | T S | D Sr | DD D | Tr D |
Tvc miS | $D^6_4\ ^5_3$ | T

(138) 𝄴: mT | maD^7 mT maD^7 mS | mT maD mS mSr |
(Figuration )
mTr mDr mS ..^{6} | mTr maD mT |

(139) $\frac{3}{2}$: T | S^6 D T | D Dr T | miSc S T | Sr D T |
(Figuration )
D ..$^{3>}$ miS | T Tr Sr | $D^6_4\ ^5_3$ ..^{7} | T

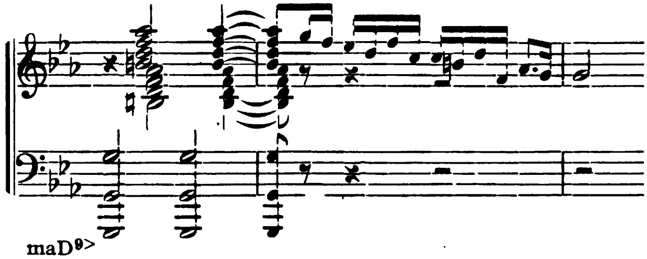
(140) $\frac{3}{4}$: maD maDc | maDr maD | mDD maD | mTc

mT | maD mD | mSc mS | $D^{6>}_4$ ..^{7} | mT

(141) 𝄴: mT mD mS^6 | mT mS maD mD | mDc mT
mS mT | maD^7 mTvr mS^6 maD | T

(142) 𝄵: S^6 | D ..^{7} | Tr $\underset{8}{\text{miS}}$ | Dc D | Tvc Tr | S Sc |
Sr T | S miS^6 | T

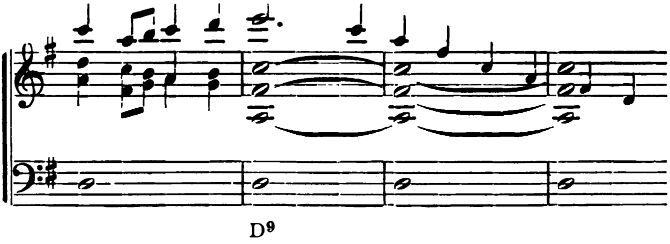
§ 66. **DOMINANT NINTH CHORDS.** The principal discords have been explained in § 28–30. It was pointed out that a seventh could be added to the D, § 28. Other seventh chords have been exhibited in the preceding paragraph as suspension or passing chords, etc. The only time any other seventh chords than D^7 may assume greater importance, will be shown in the paragraph on "Sequences." The D^7 borrows its added tone from the S, the seventh is the 1 of the S. The Dominant Ninth chord (D^9) borrows the 1 and 3 of the S, (in C-major it is G b d f a), and since we have a miS, this chord has a "sister" in the major key, when it borrows the 1 and 3 of the miS (in C-major, G b d f a♭), the $D^{9>}$. The minor key has only one D ninth chord, namely the maD chord with minor ninth ($maD^{9>}$). These chords are used with great freedom. Schumann begins his Overture "Genoveva" with this chord:

Ex. 114.



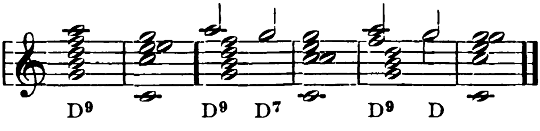
Haydn, in his Quartet in G, Op. 76, uses the D^9 thus:

Ex. 115.



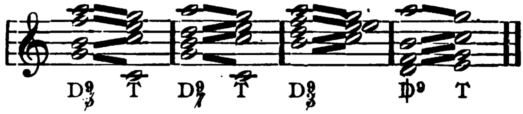
Being derived from the D the D^9 chord has the same qualities as the Dominant, and resolves like it to the T.

Ex. 116.



In § 31 the fact was mentioned that the dissonant tone of a principal discord may be used and then be dropped without requiring a subsequent resolution, and thus the 9 can disappear without resolution. See Ex. 115. In four part harmony one of the notes has to be omitted. As usual, the fifth can be most readily spared, but the third and seventh can be left out, very often the prime is omitted. The leading of parts will decide which is the best for each case.

Ex. 117.



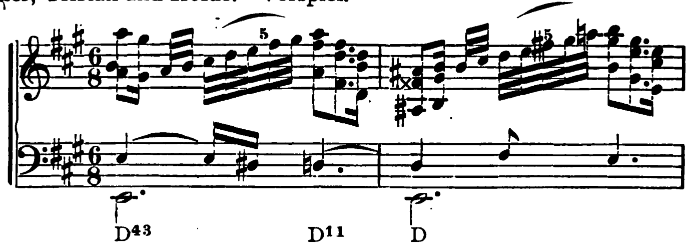
Generally, the tones have to be kept well apart. The chord is particularly well adapted for instrumental music. It sounds best with the prime in the bass, although other tones can be used. The omission of the prime of the Dominant chord with lowered (minor) ninth, Ð9>, produces the familiar "Diminished Seventh Chord", see § 79.

Other ninth chords than these must be explained as suspension or passing chords and sometimes as sequential chords (§ 73).

§ 67. Very rarely will it become necessary to employ that formidable looking chord, the DOMINANT ELEVENTH CHORD (D 11). It is the Dominant with the 1, 3, 5 of the S superimposed. This chord has six tones, but usually one or two are missing. While some theorists deny the existence of this chord altogether, others have tried to explain the entire key by means of the Tonic chord and this Dominant eleventh chord. There are tone combinations which are explained satisfactorily only by referring to this chord. It is one of those chords which directs attention to Organ point formations. It has the characteristic of all principal discords that the 11 can disappear without resolution.

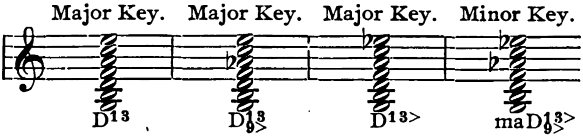
Wagner, Tristan and Isolde. Vorspiel.

Ex. 118.



§ 68. DOMINANT THIRTEENTH CHORD. To the chords of the D^{11} treated of in the preceding paragraph, another third, either major or minor, can be added. As each major and each minor thirteenth can have a major or minor ninth with it, it follows that there are four varieties of the chord.

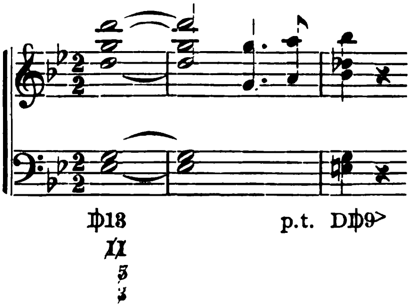
Ex. 119.



As a matter of fact these chords never appear in their complete shape, partly because some of the tones form harsh dissonances with one another, and partly also because most music is written in four-part harmony, where at least three of their tones must be omitted. In many cases all of the lower part of the chord is wanting. Sometimes only three tones of the chord appear.

Wagner, Tristan and Isolde. Act II. Introduction.

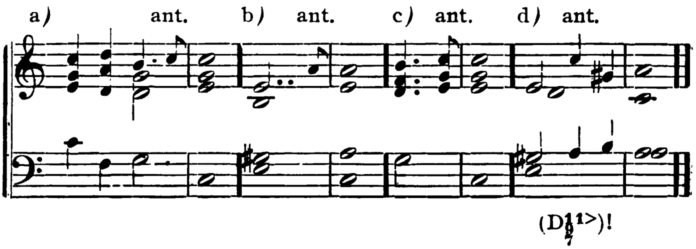
Ex. 120.



In the majority of cases the chord of the thirteenth may be treated as a suspension chord. Still there are instances in which the movements of the tones is such (skipping from tone to tone or letting one disappear unresolved) that the chord must be looked upon as a fundamental discord.

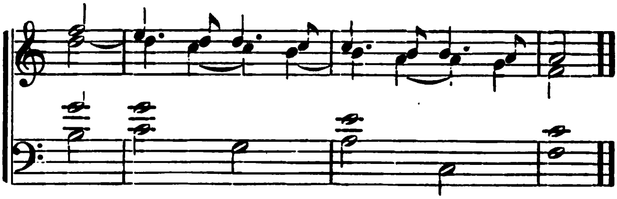
§ 69. ANTICIPATION. The anticipation is to some extent the reverse of the suspension, although not so important as the latter. The suspension delays a tone of the chord already sounded, while the anticipation precedes it. The suspension is placed on the accented part of the measure or beat, the anticipation on the unaccented part. The anticipated tone may be reached by degrees (a) or skips (b). It generally occurs on notes of short duration, and usually appears in the upper part, but it may occur in any part, or all.

Ex. 121.



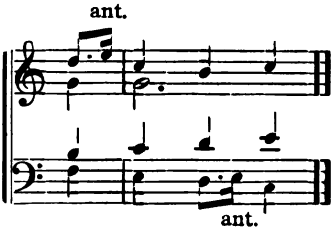
The anticipation may occur in several parts (see c). At (d) there is an interpolated tone of the sounding harmony between the anticipation and the chord to which it belongs. Suspension and anticipation can occur simultaneously in one and the same chord:

Ex. 122.



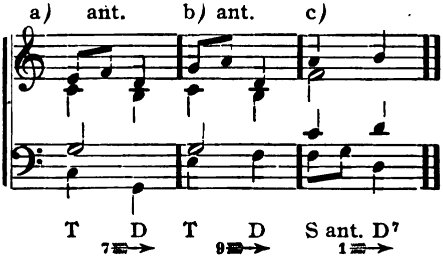
As anticipation any tone of the following chord may be used, the anticipation may move therefore to another tone of the chord at the time the chords change.

Ex. 123.



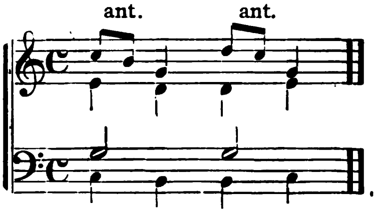
Sometimes the anticipation may be a tone which does not occur in the following chord, but nevertheless could belong to it.

Ex. 124.



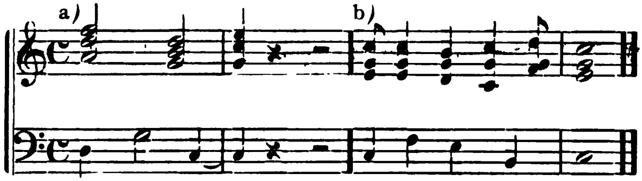
Nothing but an anticipation is the so-called *Nota Cambiata* which is an auxiliary tone below a chord tone and from which a skip into the next chord tone is made.

Ex. 125.



The anticipation can be used in a syncopated manner:

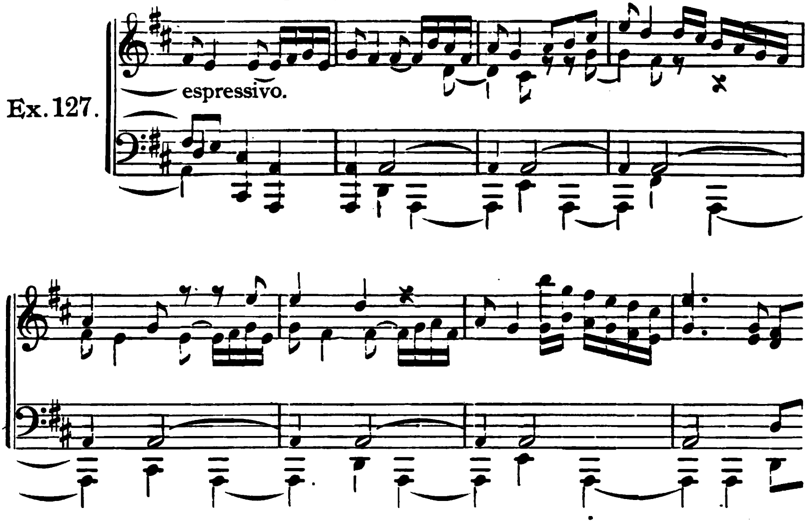
Ex. 126.



The following wonderfully exquisite melody of the great master displays anticipations, suspensions and mere syncopations. The student should find them.

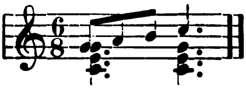
Beethoven. IX Symphony. Andante moderato.

Ex. 127.

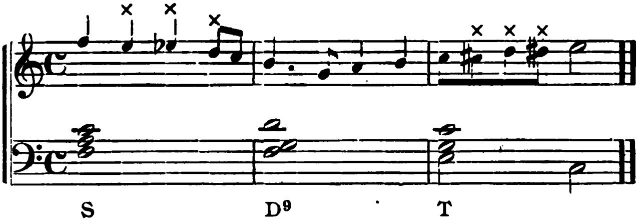


Sometimes even suspension or passing tones may be "anticipated."

§ 70. MELODIC EMBELLISHMENTS (Concluded). If two chord tones are a fourth apart, as for example, in ascending from the fifth to the prime of a chord there will be two passing tones between them. If the tones are farther apart, more passing tones can be inserted. The passing tone is a tone foreign to the harmony, passing diatonically or chromatically between other tones belonging to the chord.

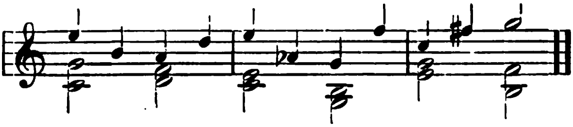


Ex. 128.



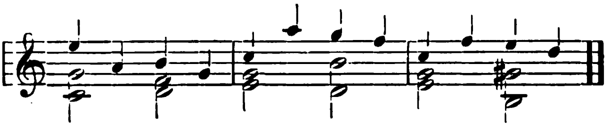
Passing tones may occur in several parts at the same time. Passing tones by skip can appear thus :

Ex. 129.



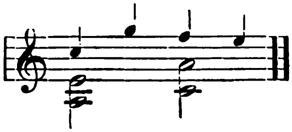
These passing tones are merely the neighbor tones to the ones which follow. Another kind of passing tones by skips consists in laying hold of the neighbor tone in the opposite direction to the tone which follows :

Ex. 130.



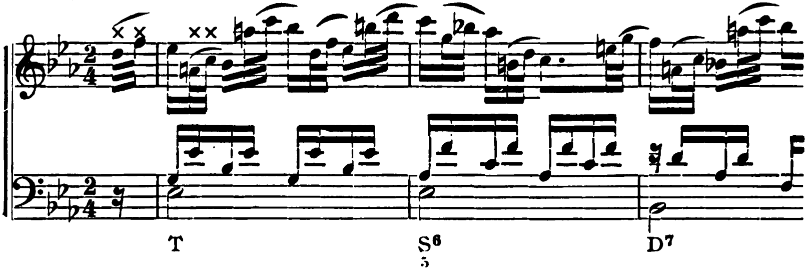
Even a suspension tone could be embellished similarly :

Ex. 131.

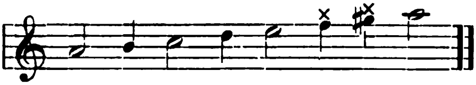


Circumscriptive passing tones (double appoggiaturas) consist of the lower and upper (or vice versa) auxiliary of any chord tone.

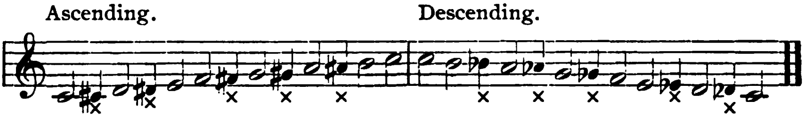
Ex. 132. Weber. Rondeau brillant.



The lower auxiliary tones used as embellishments sound usually best when they are a half tone step below the chord tone. The augmented second in the Harmonic Minor Scale will have to be considered as the result of the use of passing tones by skip.



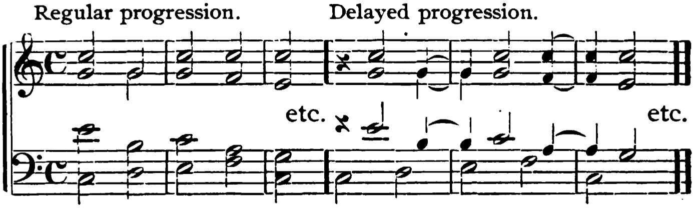
The Chromatic Scale is but a diatonic scale with chromatic passing tones, leading-tones to the diatonic tones.



The notation of the Chromatic Scale depends upon the key in which it occurs and upon the chord with which it is connected. The ascending Chromatic Scale has sharped (raised), the descending, flatted (lowered) tones.

§ 71. There is a kind of syncopation in which two or more parts merely *drag behind* the rest.

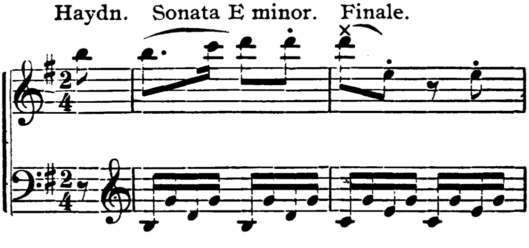
Ex. 133.



Compare the famous unisono passage in Beethoven's Overture "Leonora" (No. 3).

§ 72. DELAYED PROGRESSIONS. One or more parts may delay an expected progression, thereby forming tones foreign to the chord. These delayed progressions are altogether different from suspensions, as the parts may move by skips, which would prevent the use of suspensions, because these must resolve by degrees.

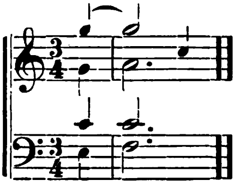
Ex. 134.



In the preceding illustration the delayed tone acts like a suspension resolved in the lower octave position (the d goes a seventh down to e, instead of a second up).

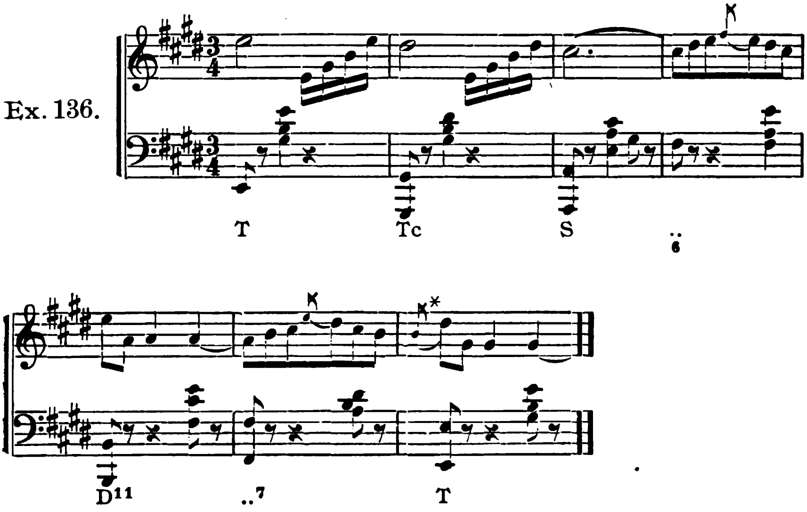
There are resolutions of suspension which are quite exceptional. For instance, when the suspension resolves by skip into another chord tone than the one it ought to. All these ornamental resolutions may be called elliptical resolutions of suspensions.

Ex. 135.



Pucini. The Bohemians. Second Act.

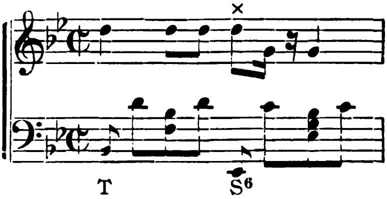
Ex. 136.



The d♯ is a suspension which is made to resolve to g♯ instead of e. In the following example the suspension tone d falls to g instead of going to e♭.

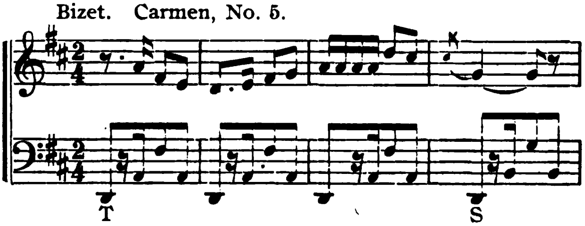
Schubert. Op. 142, No. 3. Impromptu.

Ex. 137.



In the next illustration the grace note c♯ is a delayed progression and acts like a suspension which falls to g instead of going to d (or possibly b).

Ex. 138.

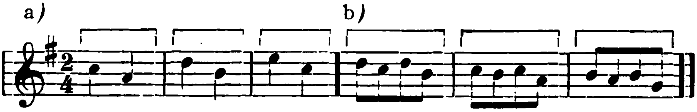


CHAPTER VI.

SEQUENCES, INTERMEDIATE CADENCES, PEDAL POINT ETC., ETC.

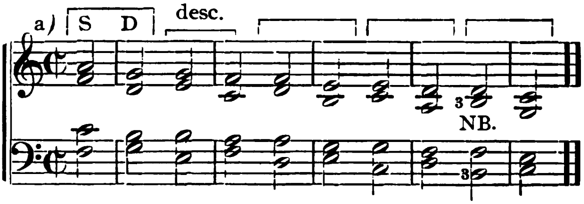
§ 73. SEQUENCES are the repetitions of a long or short motive (group of tones or series of chords) up or down the scale. The sequence is not really an harmonic, but a melodic formation, and so long as the sequence lasts, the harmonic functions are suspended, which explains why leading tones and dissonances may be doubled, etc. It is also here where other seventh chords than the Dominant seventh chord, seem to appear with equal rights, yet they have not the last tonal significance or influence, they are merely copies (shadows) of the chords in the motive. A sequence requires at least two repetitions of a motive. The series of chords used as a pattern must proceed logically and be faultlessly connected. The violation of rules that do occur in the imitation, are a mere natural result of the strong melodic current contained in a sequence, which is after all but a mechanical tranposition. The spirit of persistence prevails in a sequence. A sequence can even consist for one part.

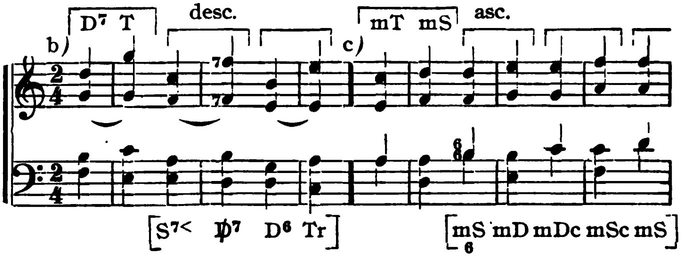
Ex. 139.



The following harmonic sequences (which are so many simultaneous parts) will explain what has been said.

Ex. 140.



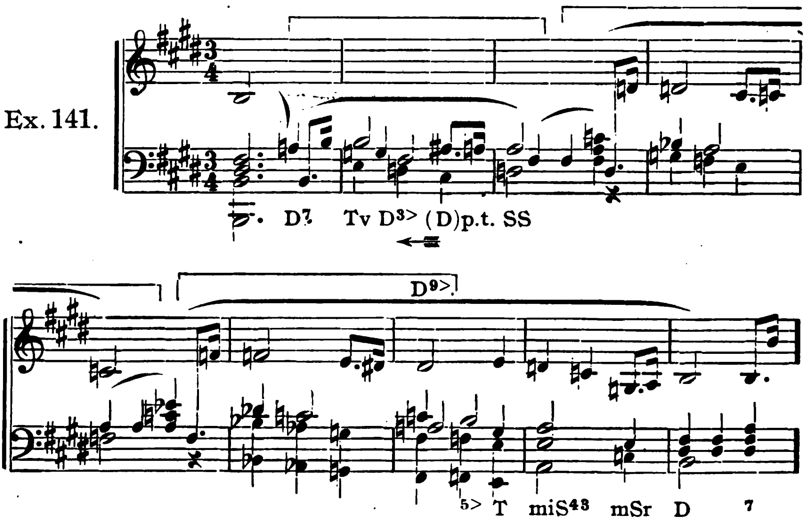


Because in the imitations of the sequence motive the tonal functions cease to operate for a time, there is no reason of trying to indicate them. Therefore we only mark the chords of the motive and mention whether the sequence ascends or descends. Brackets mean imitations and the number of blank brackets indicate the number of imitations desired. The extension of a motive is almost unlimited ; any figuration in the motive may be accurately imitated. Yet the sequence has never been bound to strict exactness. Composers often produce fine effects by slight changes. Very interesting examples of this kind will be found in the first eighteen measures of Mozart's well known C-minor Fantasia (e Sonata). Sequences usually imitate at the interval of a second, but can do it also at the interval of a third or more. Very often they then move into other keys (see § 81 on Modulating Sequences). A beautiful illustration of such an one is given here, it contains an intermediate cadence (see § 74).

Wagner. Tannhäuser Overture.

asc. seq. at the interval of a third.

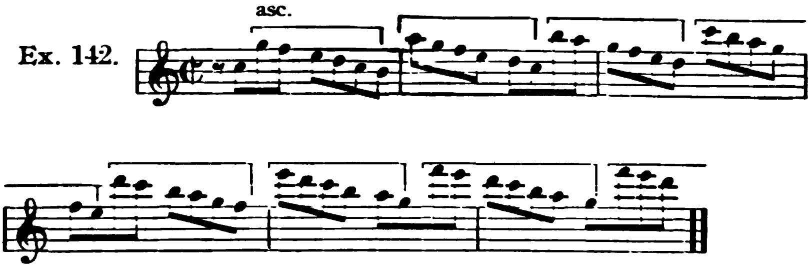
Ex. 141.



Excellent effects are also obtained when the length of the sequence does not coincide with the time of the measure, and thus the chords (or tones) which correspond with one another come on different beats of the measure.

Beethoven. Leonora Overture, No. 3.

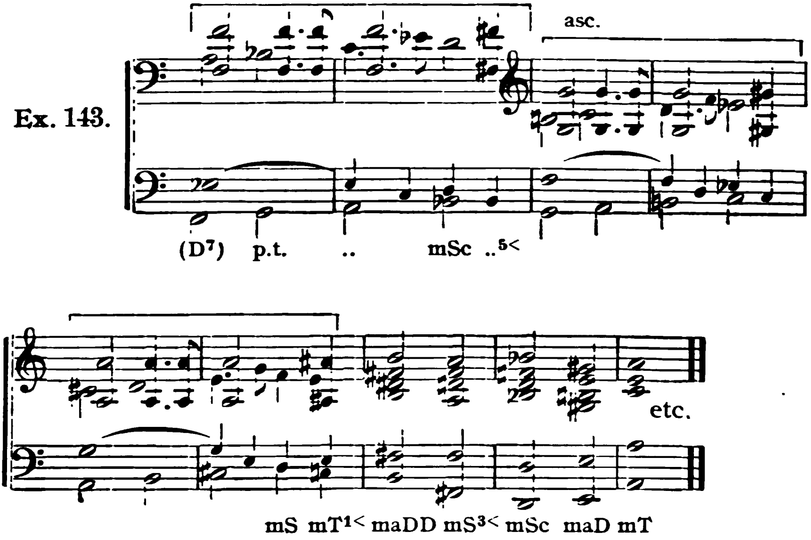
Ex. 142.



A fine example of an ascending sequence using the intermediate cadences (see § 74) is the following:

Wagner. Siegfried, Act 1, Second Scene.

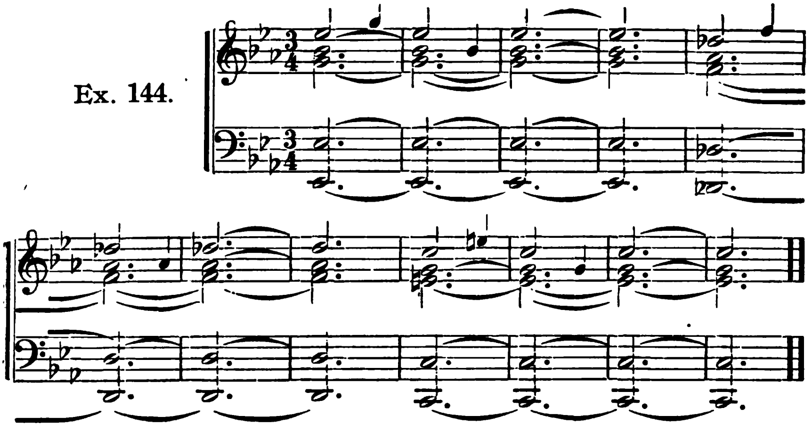
Ex. 143.


asc.
(D^7) p.t. .. mSc ..$^{5<}$
etc.
mS mT$^{1<}$ maDD mS$^{3<}$ mSc maD mT

In moving from one phrase to the next, consecutive fifths or octaves resulting from the last chord of one phrase to the first chord of the following phrase are unobjectionable.

Beethoven. Symphony "Eroica." First movement.

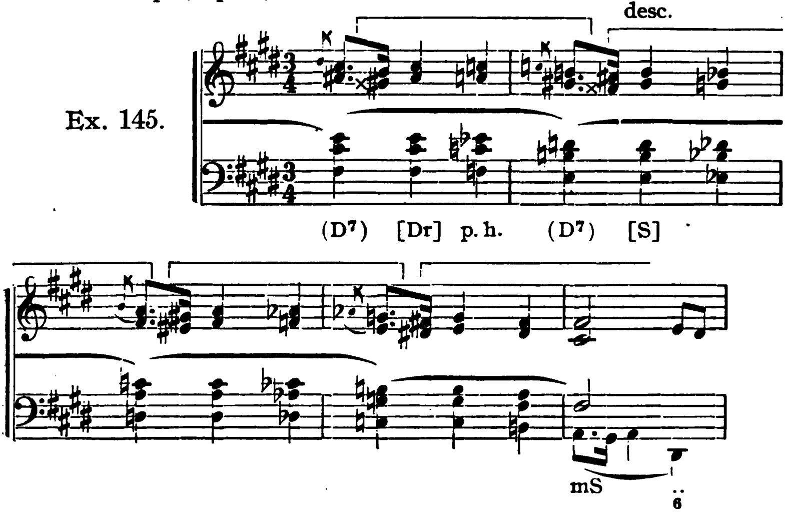
Ex. 144.



The next excerpt contains "passing harmonies" in the sequence, also fifths, see § 83.

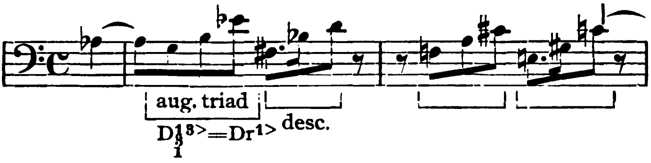
Chopin, Op. 30, IV. Mazurka.

Ex. 145.



Any discord can be used as a pattern for sequences. A very impressive succession is the series of augmented triads (see § 80) employed by Liszt in his Faust Symphony.

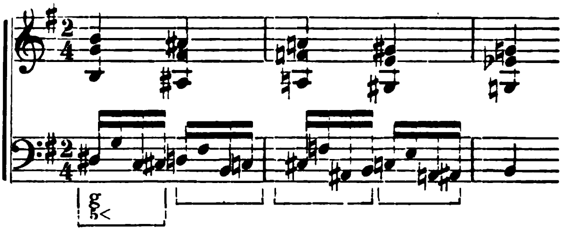
Ex. 146.



A similar example of a sequence of augmented triads is the following:

Wagner. Meistersinger, Act II, First Scene.

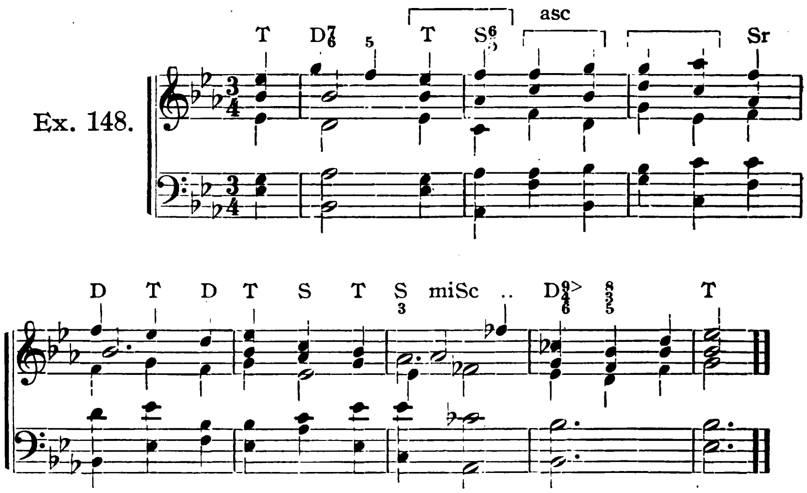
Ex. 147.



With great freedom in the figuration, the chord tone g is used instead of the chord tone b which is nearest to the passing tone; and similarly in all the chords following. In § 72 it was shown that a suspension tone can be made to resolve by skip to another than its proper and expected chord tone. In the illustration above, a similar liberty of progression occurs in that the passing tone does not issue forth from the nearest chord tone but by skip from some other member of the chord.

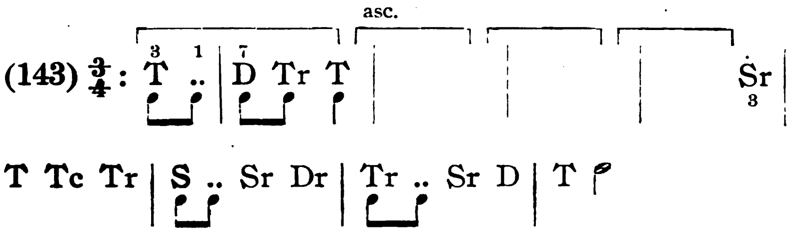
With the following exercises for sequences, the attempt at five-part writing will be made. The five parts are to remain within the same total compass retained throughout this text-book. The two lower parts may occassioually be distant an octave from the three upper; or the three lower from the two upper. Doubling of thirds and fifths will happen more often, but the former rules regarding them hold good. The following example may serve as an illustration.

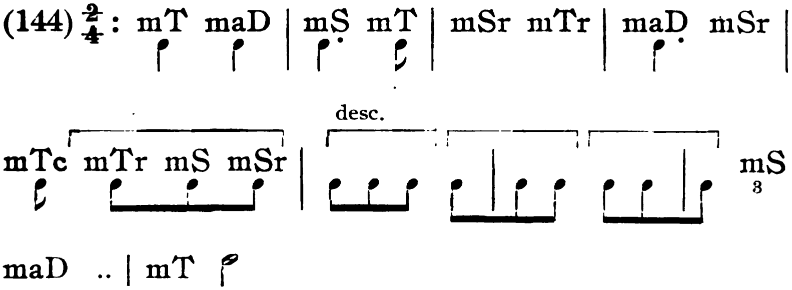
Ex. 148.

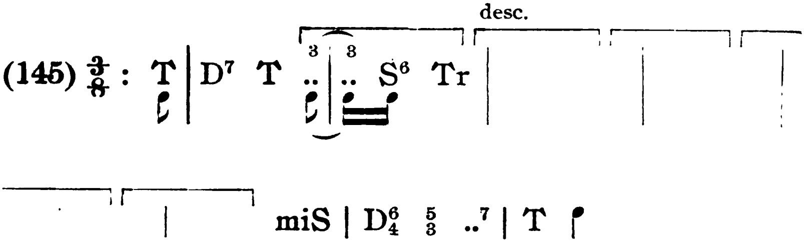


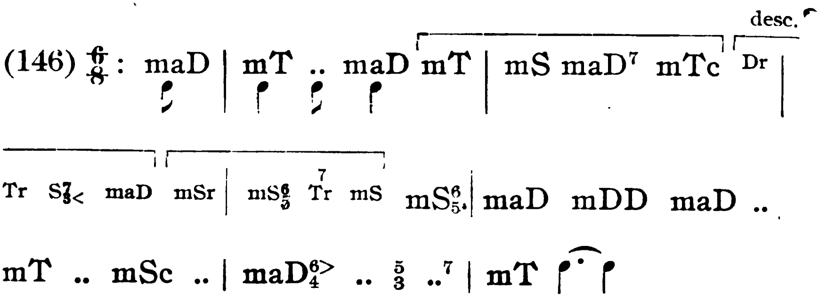
EXERCISES. (In five parts.)

Because it affords good practice in reading score, the student ought to work out these exercises on five staves; every part is to be on a separate staff.

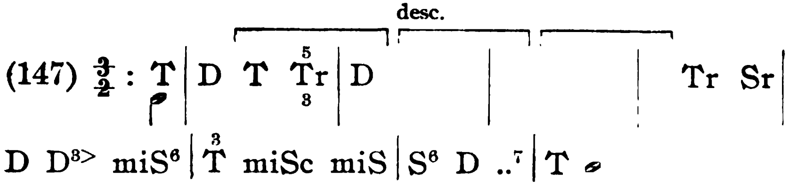
(143)

3/4 :
asc.
3 1 7
T .. | D Tr T | | | Ṡr 3 |
T Tc Tr | S .. Sr Dr | Tr .. Sr D | T

(144)


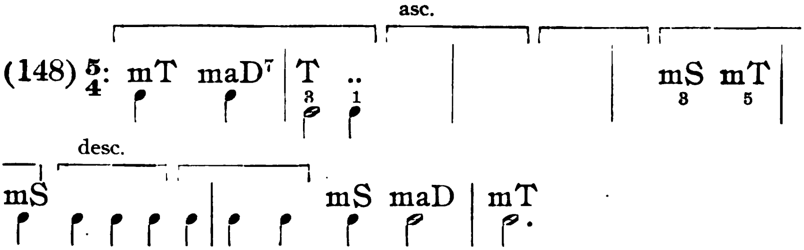
(145)


(146)

6/8 :
desc.
maD | mT .. maD mT | mS maD7 mTc Dr |
Tr S7 3< maD mSr | mS6 5 7 Tr mS mS6 5. | maD mDD maD ..
mT .. mSc .. | maD6> 4 .. 5 3 ..7 | mT

(147)


desc.
3/2 : T | D T Tr | D | | | Tr Sr |
D D8> miS6 | T miSc miS | S6 D ..7 | T

(148)

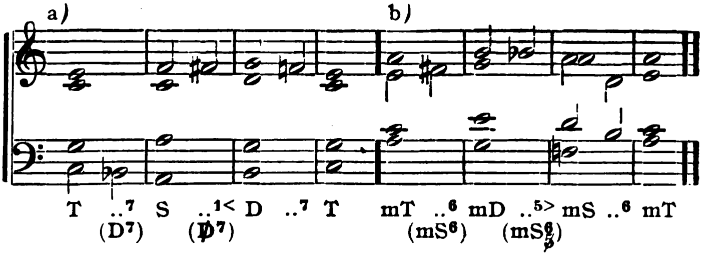


§ 74. INTERMEDIATE CADENCES. Some students may often have felt the avoidance of familiar chromatic alterations in the exercises as a restraint. Many of the successions developed in the following, may by experience have frequently entered their minds. But our aim was to develop the boundaries of the key to the utmost extent. A key is a circle of chords, and the student was taught to understand, in their relation to the tonic, chords apparently very remote from it. In this paragraph chord successions are introduced which are generally called transitions, not modulations. A modulation is the process of passing out of one key into another, meaning an actual change of tonic. Modulations, after all, are to be judged as harmony steps (chord connections) of which they are the reflex, that is the new tonics reached by modulation must always be understood similarly as chords within the key. A modulation is close when the new tonic reached is closely related to the tonic of the old key, a modulation is remote when the new tonic reached is remotely related to the tonic of the old key. Modulations have tonal functions in a higher degree or sense. In transitions, which we call Intermediate Cadences (or Middle Cadences) there is no change of any tonal function. The **T** remains the main center of the key, but in intermediate cadences the other chords (functions) of the key are made subordinate centers, surrounded by their circles of chords. It is similar to the solar system. The sun is the center of our planetary system, but some planets have their satellites, and these revolve around the planets as their center. The simplest forms of cadence, the connection of the tonic with its dominants of the same mode, are

T—S—D—T and mT—mD—mS—mT.

These will appear differently when we chromatically change a tone of a chord or add a tone foreign to the scale so that each chord becomes the dominant of the next:

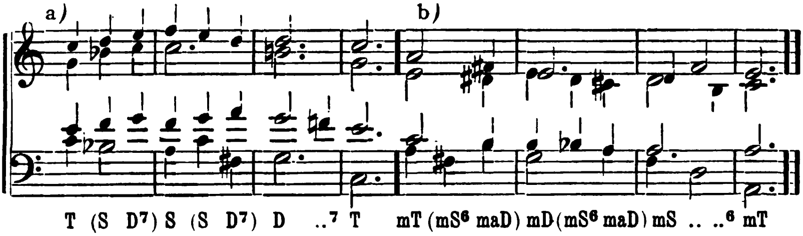
Ex. 149.


a)
b)
T ..^{7} S ..$^{1<}$ D ..^{7} T
(D^7) (Đ^7)
mT ..^{6} mD ..$^{5>}$ mS ..^{6} mT
(mS^6) (mS$^{6}_{5\flat}$)

Indicating the alteration of tonal chords as passing tones by 7, 1<, 6 and 5> is, after all, the simplest analysis in this case. But in other cases the indication of chords as dominants of the following chord is the only correct mode of analysis, because it corresponds to the real course of thought, especially when more than one chord is referred to the next chord as tonic (center of that chord circle). Intermediate cadences are merely harmonic embellishments of tonal functions. Such relationship is indicated by placing the chord signs in *round* brackets, as we did in the lower row of Ex. 149.

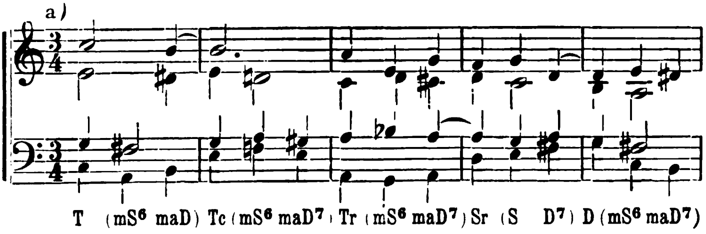
Chords which circumscribe the chord immediately following it, are always indicated as intermediate cadences by placing the chord signs in round brackets, and are not to be understood as referring to the tonic of the key.

Ex. 150.

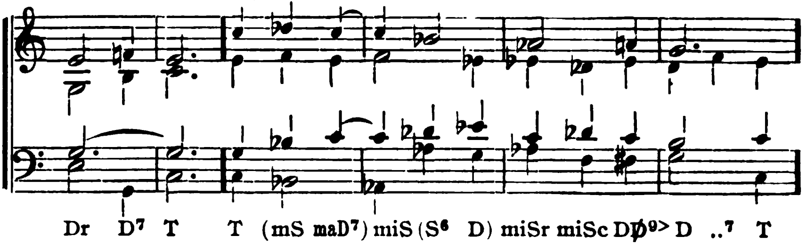

a)
b)
T (S D^7) S (S D^7) D ..^{7} T
mT (mS^6 maD) mD (mS^6 maD) mS .. ..^{6} mT

Since all relative and correlative chords may be made the bearers of intermediate cadences, a great variety of chord successions results.

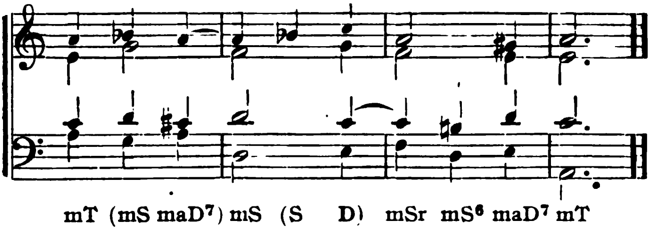
Ex. 151.


a)
T (mS^6 maD) Tc (mS^6 maD^7) Tr (mS^6 maD^7) Sr (S D^7) D (mS^6 maD^7)

b)

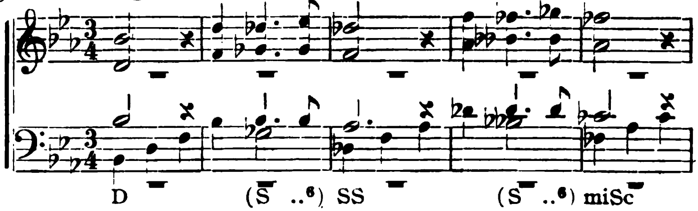


c)



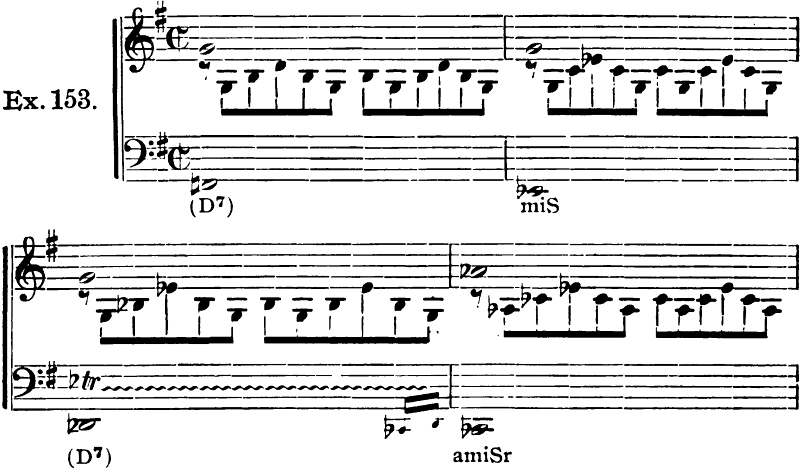
Wagner. Lohengrin, Act I, Scene 3.

Ex. 152.



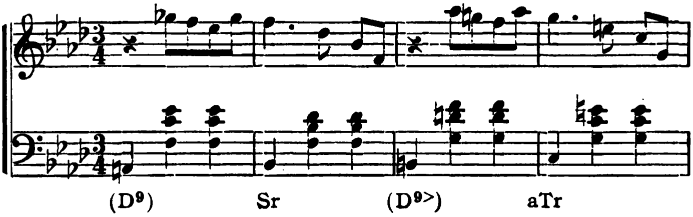
Schubert. Impromptu, Op. 90, III.

Ex. 153.



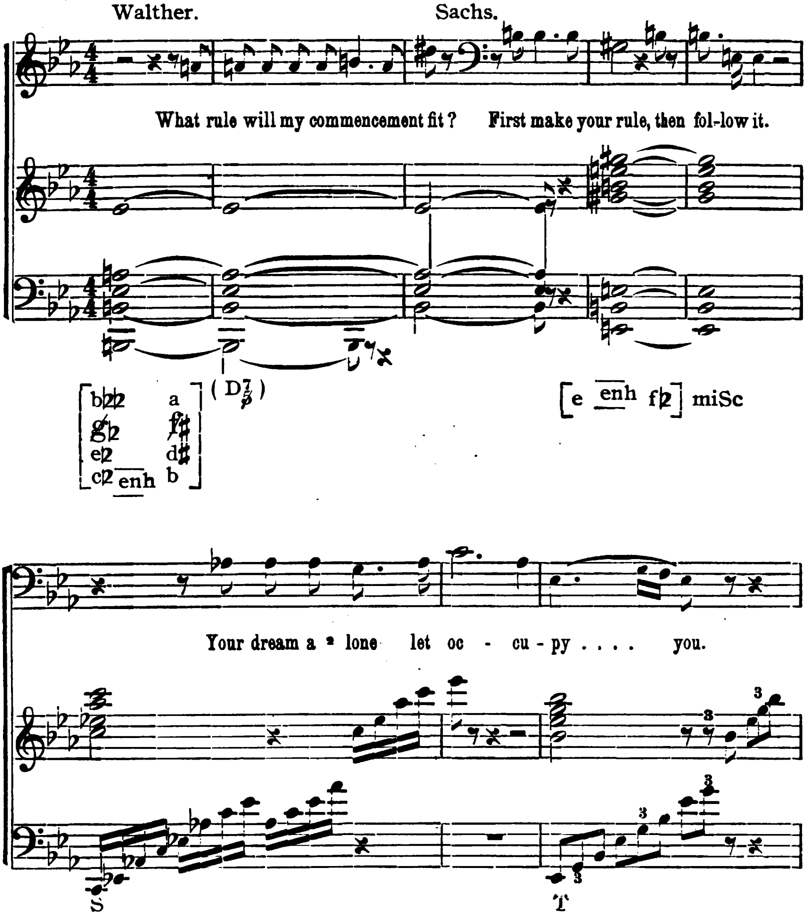
Tschaikowsky. Op. 37, No. 12. Christmas.

Ex. 154.



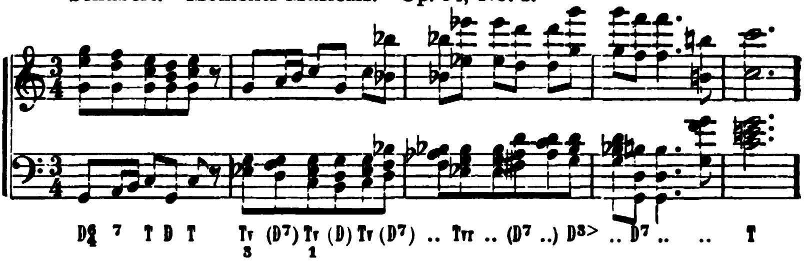
Ex. 155.

Wagner. Meistersinger, Act III, Scene 2.


Walther.
Sachs.
What rule will my commencement fit? First make your rule, then fol-low it.
b♭♭ a
g♭ f♯
e♭ d♯
c♭ enh b
(D⁷)
e enh f♭ miSc
Your dream a - lone let oc - cu - py . . . . you.
S
T

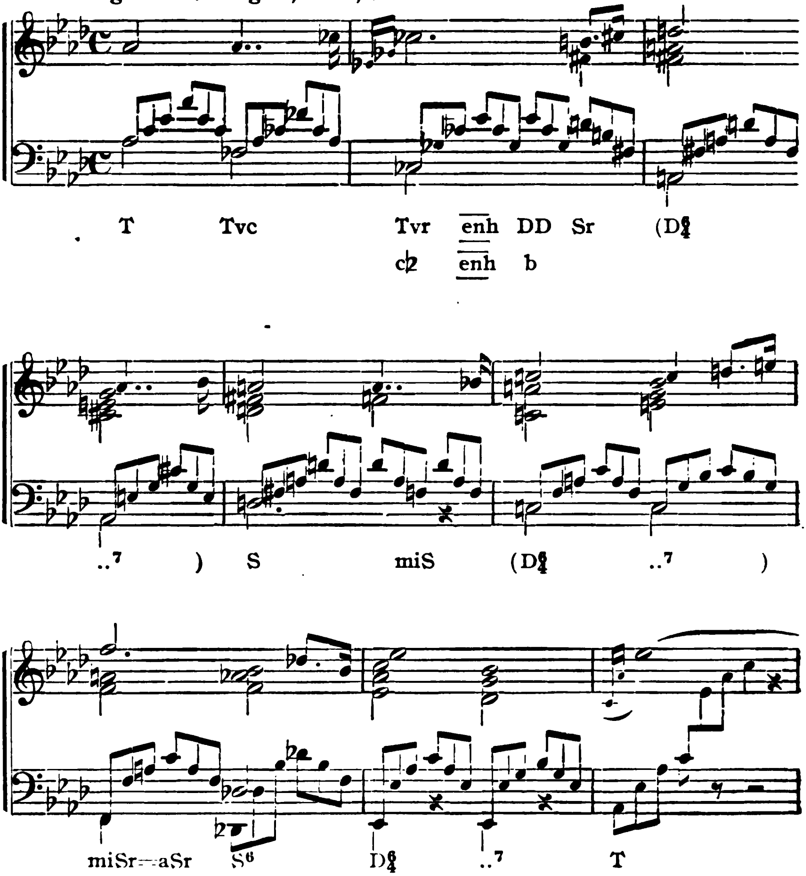
Ex. 156.

Schubert. Moments Musicals. Op. 94, No. 1.


D6/4 7 T D T Tr (D7) Tr (D) Tr (D7) .. Trr .. (D7 ..) D8> .. D7 .. .. T
3 1

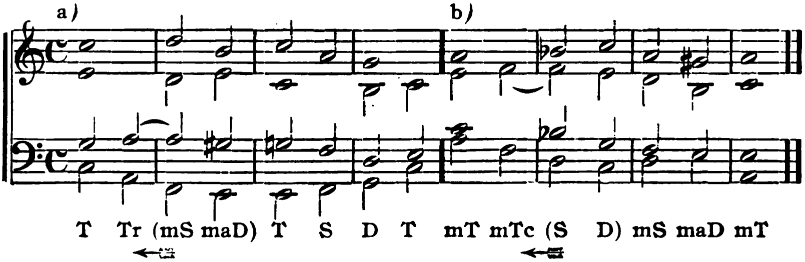
Ex 157.

Wagner. Lohengrin, Act I, Scene 2.



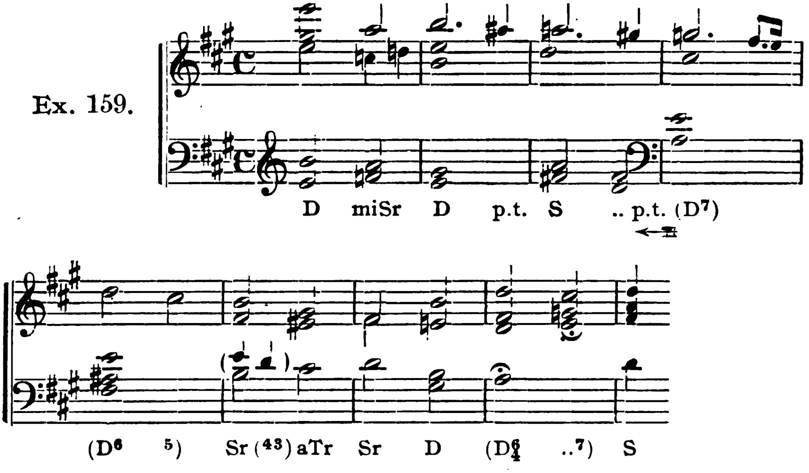
Sometimes an intermediate cadence follows a chord instead of preceding it. Then in place of the chord embellished (circumscribed) and expected to follow, another comes in. In that case an arrow pointing backwards is used to show that the chord before the bracketed chord succession is its tonic.

Ex. 158.



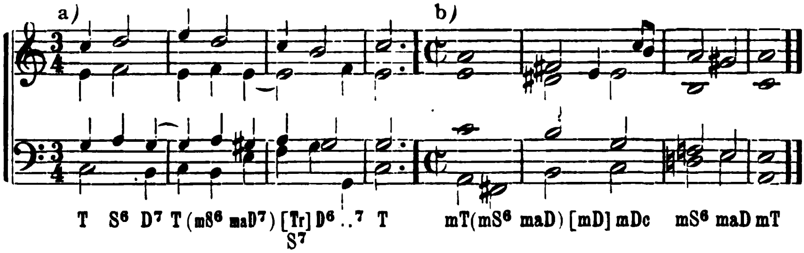
Wagner. Lohengrin, Act I, Scene 3.

Ex. 159.


D miSr D p.t. S .. p.t. (D^7)
(D^6 ^{5}) Sr (^{43}) aTr Sr D (D$^6_4$ ..^{7}) S

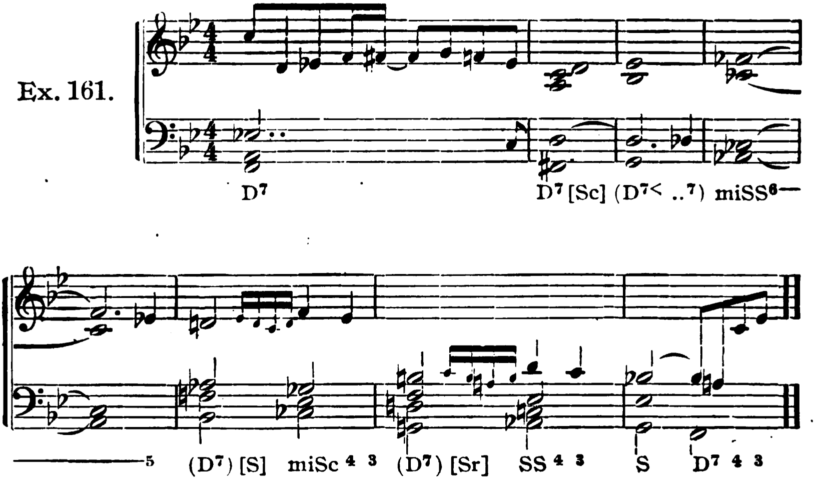
There are cases where the chord circumscribed by an intermediate cadence neither precedes nor follows, but is skipped and another chord comes in. The expected chord is indicated in *square* brackets after the round ones. The chord in the square brackets is therefore only the imagined tonic of the preceding intermediate cadence given in the round brackets, and is itself not used but skipped. But usually a chord nearly related to the skipped one follows.

Ex. 160.


a)
b)
T S^6 D^7 T (mS^6 maD^7) [Tr] D^6 ..^{7} T
S^7
mT(mS^6 maD) [mD] mDc mS^6 maD mT

Wagner. Meistersinger. Second Act, second scene.

Ex. 161.


D^7
D^7 [Sc] ($D^{7<}$ ..^{7}) $miSS^6$———^{5}
(D^7) [S] miSc ^{4} ^{3} (D^7) [Sr] SS ^{4} ^{3} S D^7 ^{4} ^{3}

All this shows that any tonal chord can be embellished harmonically (intermediate cadences are finally nothing but harmonic embellishments) by a Dominant with a 7 or a Subdominant with a 6 like the Tonic; and can also be treated like in a deceptive close, See Ex. 161, measure 6, or measure 7.

In order to read quickly the chord signs enriched by these new resources, and to have in mind at once the chord successions called for, the student must, whenever he comes to round brackets look directly to the chord after them (unless an arrow points backwards), and consider it as the tonic (center) of the intermediate cadence. The abbreviation enh in some of the exercises indicates an enharmonic tie.

EXCERCISES.

(In four parts. Free use of figuration tones etc. permitted.)

(149) $\frac{3}{4}$: T_3 | $.._{3>}$ miS^6 Tr | (D^7) miSc .. | D^6_4 DD $..^7$ |

$\mathrm{D}^{9>}_7$ 𝅗𝅥 ^{8} | T (D^7) S | D^9 ^{8} $^7_{1<}$ | Tr miSr miS | T

(150) 𝄵: mT mTr | mD (D^7) | mS (D^7) | maD (D^7) |

mTr mS | (D^7) [mS] mSc | $\mathrm{maD}^{6>}_4$ ^{7} | mT

(151) $\frac{3}{2}$: S^6 | $..^{1<}_{6<}$ D^8_6 $^7_5$ | T $..^{7<}$ S | Dr (mS^6 maD) |

Sr S (mS^6_5 $_{1<}$ | maD S$^{3<}$ maD) | Tr $..^6$ (D_7) | S D^6_4 ^{7} | T 𝅗𝅥

(152) 𝄵: $\underbrace{\mathrm{mT}_1\ ..^{3<}\ |\ \mathrm{mS}\ ..^{1<}_{5}}$ | D $..^7$ | mTv mT | mD (mS^6 |

maD^7) mS | $\mathrm{mS}^{3<}_6$ maD^7 | mTv

(153) 𝄵: T | S $..^{7<}$ | (mS^6 ^{5} | maD $..^7$) | Tr DD^7 |

D T | Dc D | T $..^{6>}_{\substack{4< \\ 2<}}$ | T

(154) 𝄵: mS | mT ($\not{\mathrm{D}}^{9>}$) | mD (mS^6_3) | mD (D) | mD mT |

(mS^6 maD) [maDr] | (D) [mTvr] ($\not{\mathrm{D}}^{9>}$) | maDD^7 maD | mT

(155) 𝄵: TTv | DD (D) [Dr] | D$^{3>}$ (D^7) | S^6 ^{5} |

(mS^6 maD) | Tc Tr | D$\not{\mathrm{D}}^{9>}$ D^7 | T

(156) $\frac{3}{4}$: $D\not{D}^{9>}$ D $(\not{D}^{9>})$ | mTr $(\overset{♪}{D}\ \overset{♪}{D}r$ S) | mS $(\not{D}^{9>})$ mS |
$\underset{\leftarrow}{}$

maD (miS^6 D)· | mDr (S^6 D^7) [mTc] | (mS^6 maD$^{6>}_{4}$..^{7}) |

mS^6 (D) maD | mT

(157) $\not{\mathbb{C}}$: T (D^7) [Tr] | S (D^{9}_{7} ^{8}) [Dr] | $\overset{♩}{Tr}_{8}$ $(\overset{♩}{\not{D}}{}^9)$ DD^7 |

T_3 S | DD^9 (D^7) | Dr Sr | D^6_4 ..^{7} | T

(158) $\frac{3}{4}$: $\underset{♩}{mT}$ | $\underset{𝅗𝅥}{mS}$ $(D^7_{5>})$ | maD mT | maD $(DD^7_{5>}$ |

D^7) [Tr] mS^6 | maD mT | mTr $\underset{\leftarrow}{(}$mS^6 $\underset{3\ \overline{enh}}{..)}$ | $D^8_{6\ 8}$ $_5$ ..^{7} | mT

(159) $\not{\mathbb{C}}$: $D\not{D}^9$ (D^7) [Dr] | Tvc miSc | $\underset{\leftarrow}{(S)}$ D^7 | $T^{4<}_{2<}$ $^5_8$ |

D_7 $(miS^{\overset{5<}{6}}_{s}$ | $D^{\overline{enh}}_{5}$ $^{3}_{}$ $^7_{5>}$) | DD D^7 | T

(160) $\frac{3}{4}$: $\underset{♩}{mT}$ $\underset{♩}{maDD}$ | $\underset{♩\cdot}{maD}$ (miSc $D\not{D}^{9>}$) [maD] |

maDr mT (D^7) | mSc_3 (D^7) [mS] mSr | mTr (mS^6 maD^7) |

mTr (mS^6 maD) | mDr (mS^6 maD^7) [mS] |

mSc $mS^6_{1<}$ $\underset{♪}{maD^{6>}_{4}}$ $\underset{♪}{^7}$ | mT

$$(161)\ \tfrac{3}{2}\!:\ \mathrm{T}\ \underset{1}{\mathrm{miSr}}\underset{\text{enh}}{\mid}\underset{8}{(\mathrm{D})}\ [\mathrm{Tr}]\ \mathrm{T}\ \mathrm{D}\mid \mathrm{T}\ ..^{5<}\ \mathrm{S}\mid \mathrm{D}\not{\mathrm{D}}^{9>}\ \mathrm{D}\ ..^{7}_{1<}\mid$$

$$\mathrm{Tr}\quad \mathrm{T}\quad \mathrm{S}\mid ..^{2<}_{4<}\quad {}^{5}_{8}\quad \underbrace{\underset{3>}{..}\mid \underset{5>}{\mathrm{DD}^{7}}}\quad ..^{8}_{6}\mid {}^{7}_{5>}\quad {}^{6}_{4}\quad ..^{7}\mid \mathrm{T}$$

$$(162)\ \tfrac{3}{4}\!:\ \mathrm{mT}\ \overset{5>}{..}\ \mathrm{mS}^{6}\mid \overset{1<}{..}\ \mathrm{maD}\ \mathrm{mTc}\mid \mathrm{mSc}=\mathrm{S}\ \mathrm{miSr}\ \mathrm{DD}^{7}\mid$$

$$\mathrm{D}^{6}_{4}\quad ..^{7}\quad ..^{1<}\mid \mathrm{Tr}=\mathrm{mS}\quad ..\quad (\mathrm{miS}^{6}\mid \mathrm{D}^{7}\quad \mathrm{mTr}\quad \underset{\leftarrow\ 7}{(\mathrm{D})}\mid$$

$$\underbrace{\underset{1}{\mathrm{maD}^{6>}_{4}}\quad \mathrm{D}\not{\mathrm{D}}^{9>}\quad \underset{1}{\mathrm{maD}^{7}}}\mid \mathrm{mT}\quad 𝅗𝅥.$$

$$(163)\ 𝄵\!:\ \underbrace{\underset{1}{\mathrm{T}}\ \not{\mathrm{D}}^{7}\mid \underset{1}{\mathrm{T}}}\ (\mathrm{D}^{7})\ [\mathrm{Sc}]\mid \mathrm{S}\ ..^{6}_{1<}\mid \mathrm{Tvr}\ \underset{\leftarrow}{(\not{\mathrm{D}}^{9})}\mid (\mathrm{D}^{7})\ [\mathrm{mSr}]$$

$$(\mathrm{D}^{9>})\quad [\mathrm{S}]\mid (\mathrm{D}^{7})\ [\mathrm{SS}]\ \mathrm{D}\not{\mathrm{D}}^{9>}\mid \mathrm{D}^{6}_{4}\quad ..^{7}\mid \mathrm{T}$$

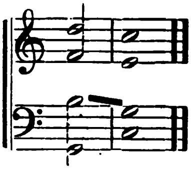
$$(164)\ 𝄵\!:\ \mathrm{maD}\quad \underset{8}{..^{7}}\underset{\text{enh}}{\mid}\underset{8}{(\mathrm{mS}^{6}}\quad \mathrm{maD})\quad [\mathrm{mTr}]\mid \mathrm{mT}\quad (\mathrm{mS}^{6}$$

$$\mathrm{maD}^{7}\ [\mathrm{mS}]\mid \mathrm{mSc}\ \mathrm{mS}^{6}\mid \mathrm{maD}^{7}_{2<}\ {}^{8}_{1}\mid \mathrm{mT}\ \underset{7}{..}\mid \mathrm{mS}^{6}_{1<}\ \mathrm{maD}\mid \mathrm{mT}$$

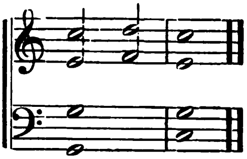
§ 75. VARIOUS RESOLUTIONS OF THE DOMINANT SEVENTH CHORD.

In the D^{7} chord the third most often ascends to its tonic, but sometimes it descends to the fifth when the bass ascends to the prime of tonic. The third of a D^{7} chord is occasionally omitted. The seventh being so characteristic in this chord, makes the omission of the third hardly noticable.

Ex. 162.

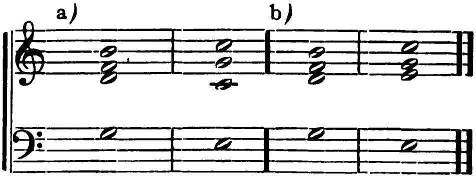


Ex. 163.



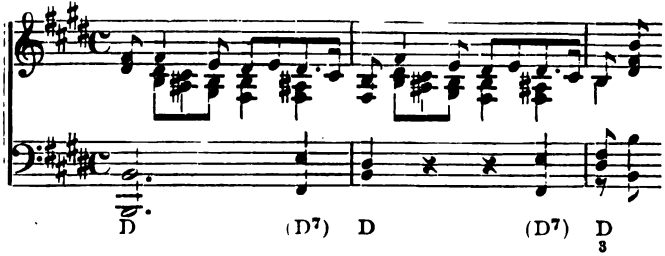
The D^{7} can resolve to the tonic with the third in the bass, then the seventh will have to ascend:

Ex. 164.



Mendelssohn. Song without words, No. 9.

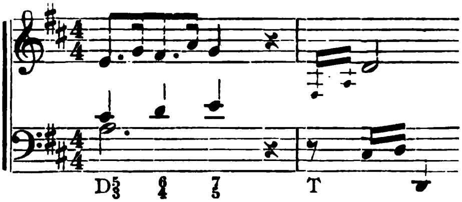
Ex. 165.



In instrumental music the tonic chord is sometimes treated as a sort of resolution in a lump of the mass of any of the discords built upon a major Dominant. The mass of harmony that follows is regular, although the progression of individual parts is free.

Haydn. Sonata in D.

Ex. 166.



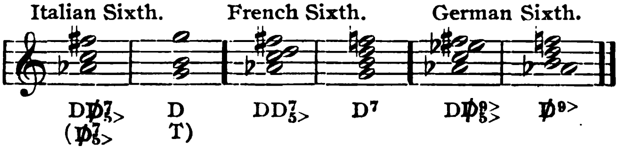
Here the 7 of the D is not resolved by degrees to the T, but the mass of harmony of the T follows the mass of harmony of the D^7.

§ 76. In Modern Harmony any concord (major or minor) can be succeeded by any other concord, uniting especially well when there is a tone in common, but they can follow each other also when there is no tone in common.

The ultimate resolution of a discord into a concord can be constantly postponed, although the harmonies change. Any seventh chord (or other discord) can follow any other seventh chord (or other discord). Especially well, when there is a tone in common. Besides, the second chord may be resolved in another octave, or in any position whatever, that is "irregularly." This is one of the most modern devices for startling effects. Sometimes the chords are chained by enharmonic modulation, that is, a sharp in one chord may be tied over to a flat in the following chord, or vice versa, because the two notes represent the same sound. Successions of discords will naturally lengthen the periods of unquietude. In connecting discords the shifting of dissonant tones must proceed in half and whole tone steps. The dissonant tones, instead of resolving diatonically may either remain stationary, forming part of the new chord, or may progress chromatically. Sometimes the enharmonic changes are expressed in writing, and sometimes not.

§ 77. Some altered forms of the D^7, DD^7 and $D\not{D}^{9>}$ have been given special names: "Italian Sixth chord," "French Sixth chord" and "German Sixth chord." These "national" terms are unrational and useless.

Ex. 167.



§ 78. **MODULATION** (Continued.) "DIMINISHED TRIADS." In § 33 it was pointed out that the omission of the prime in the Dominant Seventh chord ($\not{D}^7$) and the omission of the fifth in the minor Subdominant sixth chord (mS^6_3, miS^6_3) produces the so-called "diminished triad." When the prime of any major chord is raised or when the fifth of a minor chord is lowered the same chord formation of a diminished triad arises.

$$c^{1<} = c\sharp\ e\ g,\quad am^{5>} = a\ c\ e\flat.$$

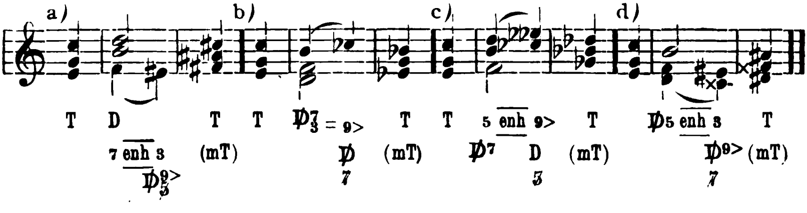
EXERCISE. Change by chromatic alteration every major and minor chord (the principal, relative and correlative chords) in the key into diminished triads, and let them proceed once as mS^6_3 and once as $\not{D}^7$. There will be two modulations from each diminished triad; and each modulation again, can go to a major or minor key. A few will not lead out of the key, and the thoughtful student will perceive why such is the case. Work in three part harmony.

$T\ ..^{1<} =$ { $\not{D}^7$ In C major: $c\ ..^{1<} = \not{d}^7$ leads to d or dm key.
mS^6_3 In C major: $c\ ..^{1<} = em^6_3$ leads to b or bm key. }

$mT\ ..^{5>} =$ { $\not{D}^7$ In A minor: $am\ ..^{5>} = \not{f}^7$ leads to $b\flat$ or $b\flat m$ key.
mS^6_3 In A minor: $am\ ..^{5>} = cm^6_3$ leads to g or gm key. }

A diminished triad is a symmetrically constructed chord in that it consists of two minor thirds. Like all symmetrically constructed chords it is adapted for enharmonic changes and consequently can produce modulations. The "Diminished Seventh chord" (§ 79) is the greatest favorite for such enharmonic modulations. Enharmonic changes are frequently used in modern harmony, but they ought not be indulged in to excess.

Ex. 168.


a)
b)
c)
d)
T D T T $\not{D}^7_3 = 9>$ T T 5 enh 9> T $\not{D}$5 enh 3 T
7 enh 3 (mT) $\not{D}$ (mT) $\not{D}^7$ D (mT) $\not{D}^{9>}$ (mT)
$\not{D}^9_5>$ 7 5 7

§ 79. **MODULATION** (Continued). "DIMINISHED SEVENTH CHORDS." These chords are characteristic and very effective forms of the D. Altogether the D and all chords derived from it are great favorites. The diminished seventh chord is usually a $D^{9>}$ with the prime omitted. The chord consists then of three minor thirds on top of each other, and is termed "diminished seventh chord" because that interval is found between their lowest and highest notes.

Diminished seventh chords can be made to arise by raising the prime of a D^7 or by lowering the fifth of a minor S^6 chord. In C-major $D^7\ ..^{1<} = \not{D}^{9>}$ ($g^7 - \not{g}^{9>}$) leads to a or am key. $\mathrm{miS}^6_5\ ..^{5>} = \not{D}^{9>}$ ($\mathrm{fm}^6_{5>} = \not{b}\flat^{9>}$) leads to e♭ or e♭m key. In A minor $\mathrm{mS}^6_5\ ..^{5>} = \not{D}^{9>}$ ($\mathrm{dm}^6 - \not{g}^{9}$) leads to c or cm key. $\mathrm{maD}^7\ ..^{1<} = \not{D}^{9>}$ ($e^7 - \not{f}\sharp^{9>}$) leads to f♯ or f♯m key.

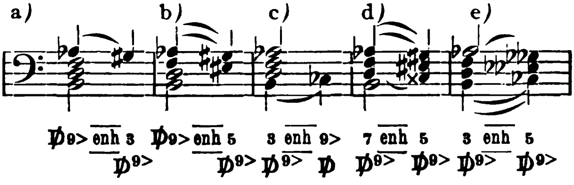
Diminished seventh chords may be formed at any time by merely raising the prime of a major chord and adding the seventh; or by lowering the fifth of a minor chord and adding the sixth.

c e g — c♯ e g b♭ = $c^7_{1<}$
a c e — f♯ a c e♭ = $\mathrm{am}^{5>}_{6}$

The student should thus alter every principal, relative and correlative chord in the key and find out to which major or minor key it leads.

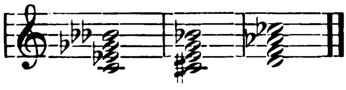
The diminished seventh chords have especial importance from their chameleon like qualities, that is the possibility of numerous enharmonic changes of meaning of single notes. Enharmonic changes are greatly indulged in in modern harmony. These chords, being built of three minor thirds on top of each other, are certainly very symmetrically constructed chords. This very symmetry makes them particularly adapted for enharmonic changes. The following will show that every diminished seventh chord equals four other diminished seventh chords.

Ex. 169.



To the ear the above chords sound all alike, but the enharmonic changes induce a different progressions of the harmony. There are only three differently sounding diminished seventh chords:

Ex. 170.



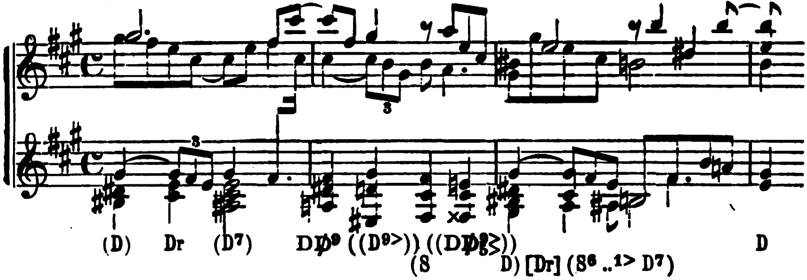
All the rest are inversions or only enharmonic changes of these. The student should change them enharmonically and find to what keys they modulate. This chord offers an easy means of modulation, but it ought not be used too freely, the too frequent use soon becomes monotonous.

Very fine examples of enharmonic modulations by means of diminished seventh chords are contained in Liszt's "Harmonies poetiques et religieuses" (Pensee des morts). It deserves careful analysis.

The $\not{D}^{9>}$ (diminished seventh chord) can also be used to embellish a D (or D^7) or any chord member of an Intermediate cadence. We indicate this in Analysis by placing two parentheses around such a chord sign thus: $((\not{D}^{9>}))$.

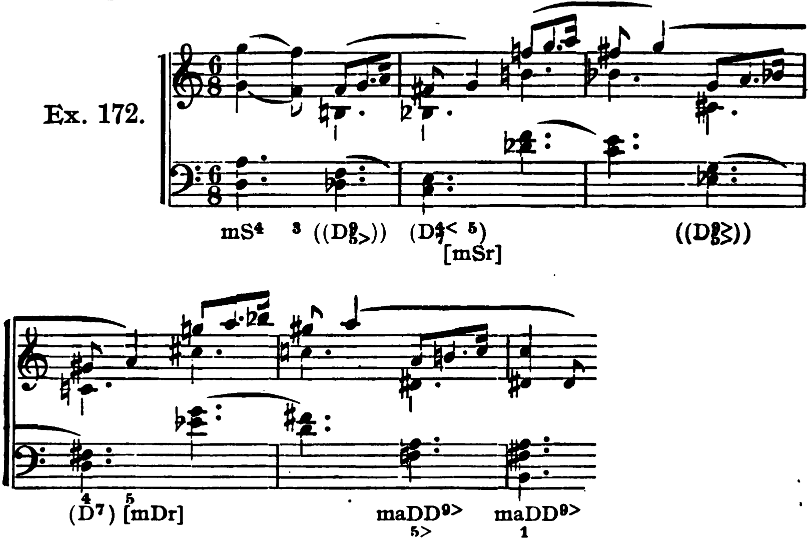
Ex. 171.

Wagner. Lohengrin Prelude.



Wagner. Tristan and Isolde. Prelude.

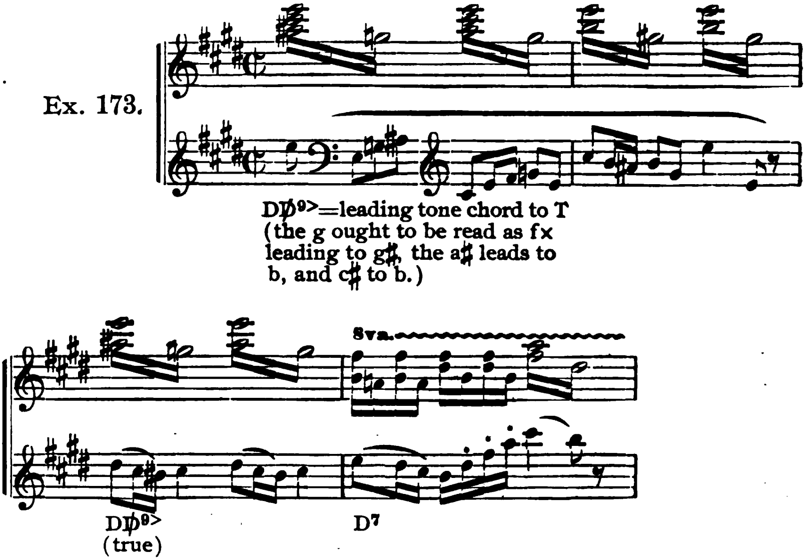
Ex. 172.



Often the Đ$^{9>}$ seems to be but a "leading tone chord." The following excerpt illustrates where an apparent DĐ$^{9>}$ is but a "leading tone chord" and where it is a true Đ$^{9>}$.

Wagner. Tannhäuser Overture.

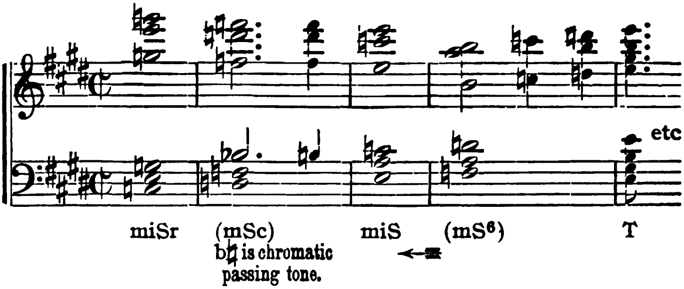
Ex. 173.


DĐ$^{9>}$=leading tone chord to T
(the g ought to be read as fx
leading to g♯, the a♯ leads to
b, and c♯ to b.)
8va.
DĐ$^{9>}$
(true)
D^{7}

The chords most commonly used for intermediate cadences are the D^{7}, miS^{6}, S^{6} and Đ$^{9>}$, but Wagner has even embellished chords by the correlative of the subdominant.

Wagner. Flying Dutchman. Act III, Introduction.

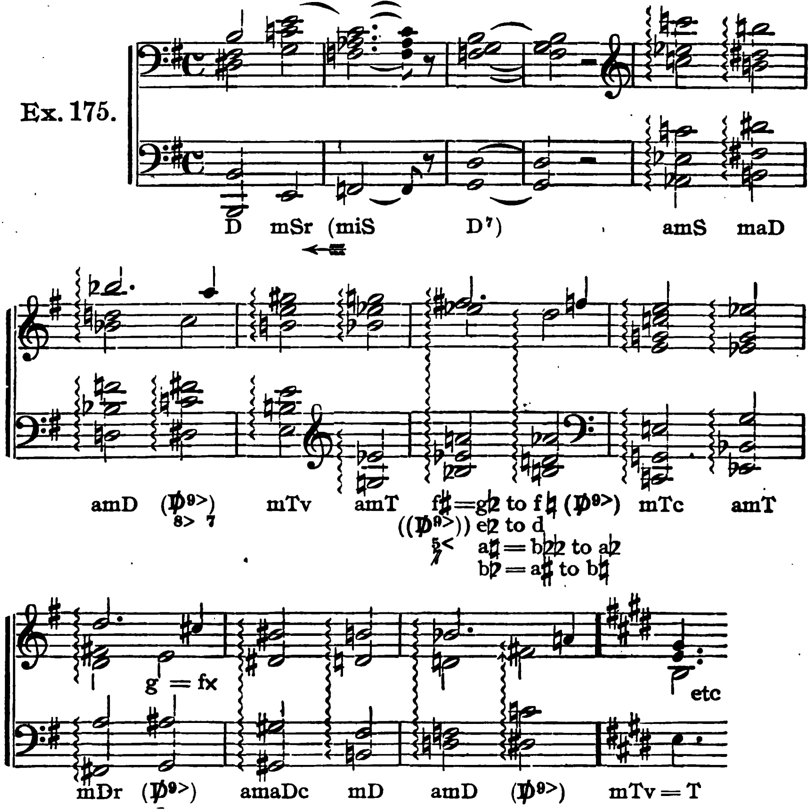
Ex. 174.



The following excerpt contains in measure 8 a suspension (or "leading tone") chord to the Đ$^{9>}$. Observe the chromatically descending melody from measure 5, and how the most distantly related chords are brought in succession.

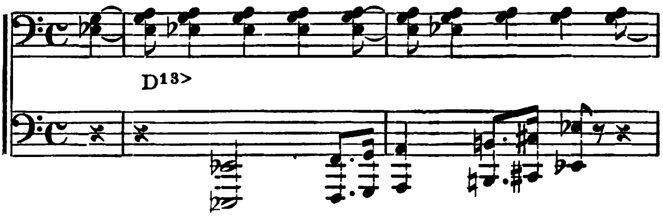
Wagner. Walküre, Act III, Scene 3.

Ex. 175.



Liszt has written a remarkable scale of whole tones in his "Traurige Mönch."

Ex. 176.



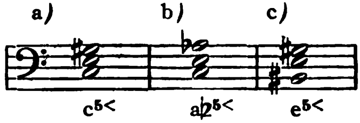
The piece ends in C-minor, the Tv. The scale of whole tones moves through the D¹³> chord in whole tone steps. According to sound c♯ is a whole tone from b and a whole tone from e♭, but going to e♭ the c♯ ought to be thought as d♭. Altogether a highly interesting piece to analyse. Compare Ex. 86, from Liszt's Dante Symphony, where the bass moves in a whole tone scale.

§ 80. **MODULATION** (Continued). "AUGMENTED TRIADS." The augmented triad is the opposite of the diminished triad. In regard to its capability of inducing surprising modulations, it nearly equals the diminished seventh chord. It consists of two major thirds, the tones stand at equal distances from one another. When the fifth of any major chord is raised, or when the prime of any minor chord is lowered then an Augmented Triad is formed. It derives its name from the augmented interval found between the lowest and highest notes.

EXERCISE. Change every major and minor chord of a key into an augmented triad.

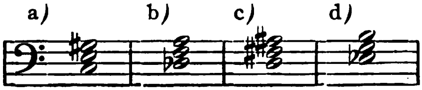
The symmetrical construction of the chord makes it particularly adapted for enharmonic modulations. The following enharmonically changed chords sound alike to the ear, but at a) the augmented fifth is in the highest part, at b) in the middle part, and at c) in the lowest part:

Ex. 177.



There are only four differently sounding augmented triads, all the rest are inversions or enharmonic changes of these:

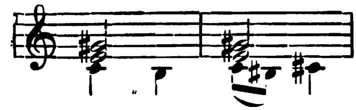
Ex. 178.



The student should change them enharmonically and find to what chords they would lead. The following will serve as an illustration.

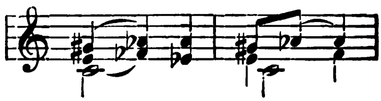
a) The bass tone is the dissonant tone (the tone that has to move):

Ex. 179.



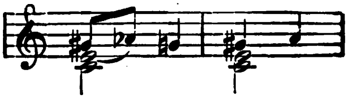
b) The third is the dissonant tone:

Ex. 180.



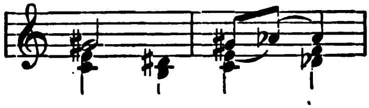
c) The fifth is the dissonant tone:

Ex. 181.



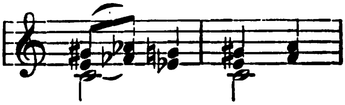
d) The fundamental and third are the dissonant tones:

Ex. 182.



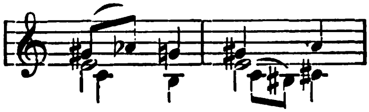
e) The third and fifth are the dissonant tones:

Ex. 183.



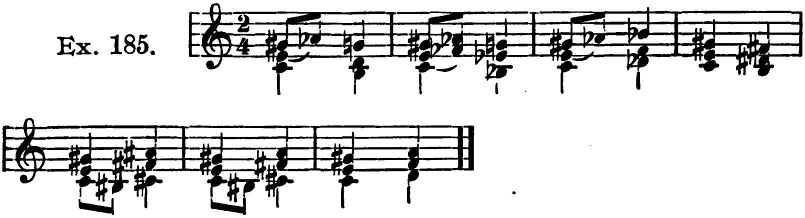
f) The fundamental and fifth are the dissonant tones:

Ex. 184.



g) All three tones may be considered dissonant. (The chord will then be a suspension chord.)

Ex. 185.

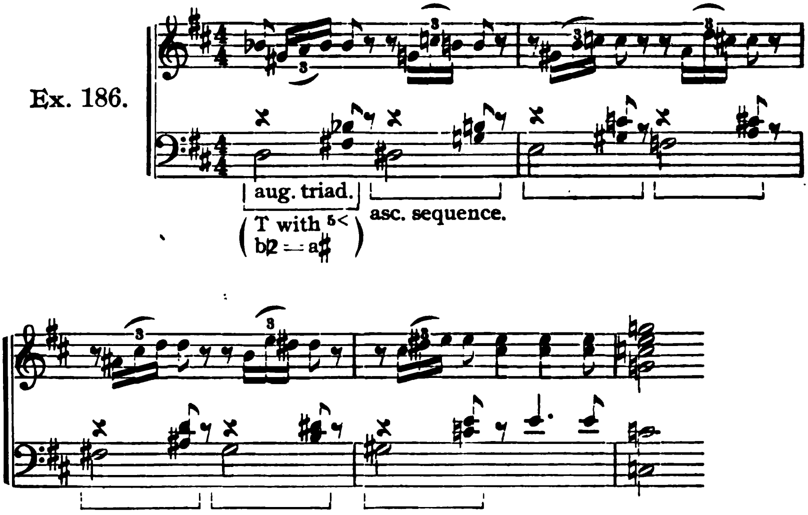


Only those tones of an augmented triad which are not to be considered dissonant may be doubled. Omitting a tone of the chord would naturally destroy its character and meaning.

The augmented triad may be succeeded by another discord. Every Dominant seventh can follow the augmented triad, if it is skillfully done. The student ought to try it. Then the student may also try to have every diminished seventh chord ($\not{D}^{9>}$) follow the augmented triad. In each case will be found a tone common to both chords, which forms the connecting link or means of modulation. The augmented triad can also be embellished by suspension tones, etc. It is also possible to go from one augmented triad to another.

Wagner. Tristan and Isolde. Act I, Scene 5.

Ex. 186.

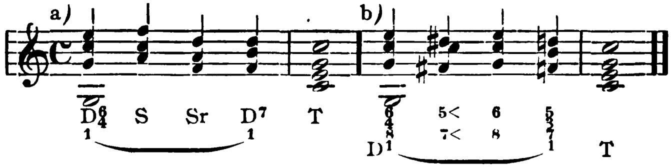


See also the examples Nos. 146, 147 and 143.

This chord has certainly an almost endless variety of possibilities and a wonderful flexibility.

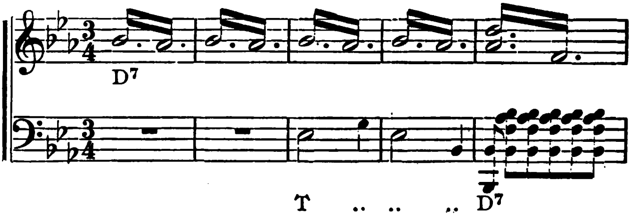
§ 81. PEDAL POINT or ORGAN POINT is the name for a prolonged bass tone, upon which is formed a series of chords which can also include passing chords foreign to that tone. Standing among themselves in correct connection the chords move more or less independently from the bass tone. Organ point formations are an extension of the harmonic apparatus and consequently this paragraph concludes the explanation of the most complicated tone combinations. Its name has been derived from organ music, where deep tones long sustained are played on the pedal key-board by the player's feet. The harmonic domain was in time extended, and long sustained tones (pedal points) are now also found in the middle and higher regions. The pedal tone when first sounded, or finally quitted, must be a member of the chord above it. The pedal point was undoubtedly developed from the D^6_4, which may be looked upon as the germ of the pedal point.

Ex. 187.



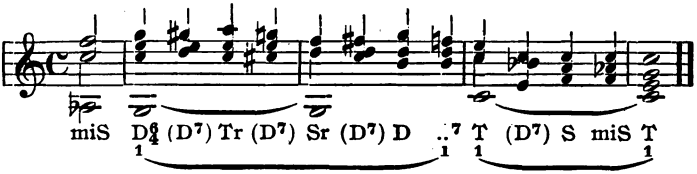
The most effective tone of the pedal point is the prime of the tonic, as an auricular illustration that all harmonies are thought of in connection with the tonic. The 1 of the D is a favorite bass for organ points. And sometimes the prime and fifth of the tonic are used, producing a so-called Double Pedal. A most exquisite example of this is Chopin's Berceuse, Op. 57. Even the 1 and 5 of the T and 5 of the D have already been employed as a Triple Pedal. In this manner even the D^7 has been used. The 1 of the S may also be used as bass. A pedal may occur in either an upper, middle or lower part. It is most effective as a bass. The other positions are named "inverted pedal." Then the famous passage in Beethoven's "Eroica" Symphony may be called a D^7 inverted pedal, with the T tones below it:

Ex. 188.



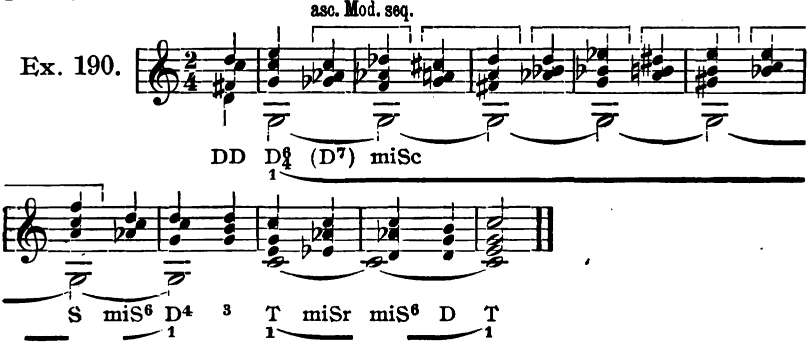
The spirit of unity pervades in the pedal point. The pedal point need not be merely sustained or repeated but may have any ornamental figure. In Analysis we separate the pedal, and indicate chords above it as we always did. The following example contains intermediate cadences.

Ex. 189.


miS D^6_4 (D^7) Tr (D^7) Sr (D^7) D ..^{7} T (D^7) S miS T
1 1 1 1

A modulating sequence (see Examples Nos. 141, 143 and 144) can be combined with a pedal point. This taxes the power for tonal perception to the utmost.

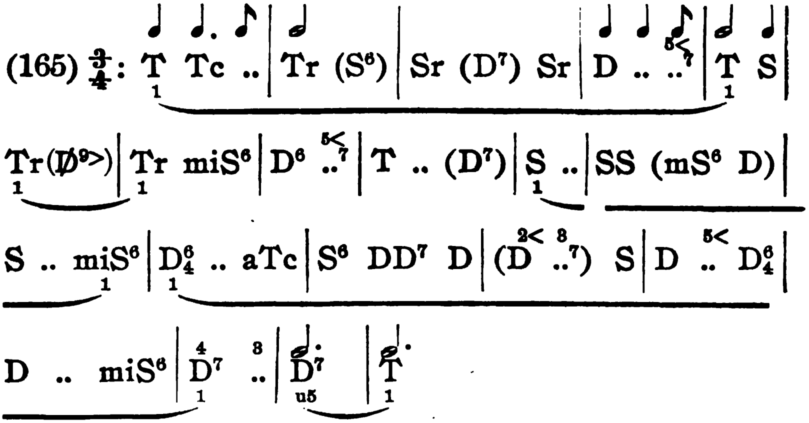
Ex. 190.



In a modulating sequence not only the melodic pattern but also the harmonic one is imitated, by having successions of functions repeated in other keys.

EXERCISE.

(165)


3/4: T Tc .. | Tr (S⁶) | Sr (D⁷) Sr | D .. ..⁷ | T S |
Tr(D⁹>) | Tr miS⁶ | D⁶ ..⁷ | T .. (D⁷) | S .. | SS (mS⁶ D) |
S .. miS⁶ | D⁶₄ .. aTc | S⁶ DD⁷ D | (D ..⁷) S | D .. D⁶₄ |
D .. miS⁶ | D⁷ .. | D⁷ | T
1
u5
5<
2<
8
4

The u5 (underfifth) of the D is the prime of the T. In the second last measure of the above exercise the D⁷ can be considered a suspension chord delaying tones of the tonic.

§ 82. **MODULATION** (Concluded.) Not only single chords but also single tones can be made the pivoting points of modulation. The different possibilities are:

1) a dissonant tone becomes a member of a concord, for example: $\overset{5<}{c} = \overset{5}{c\sharp m}$,

2) a member of a concord becomes a dissonant tone, for example: $\overset{5<}{c} = \underset{e}{6>}$,

3) a member of a chord turns into a different member of another chord, for example: $\overset{9>}{\cancel{g}_3} = \underset{\cancel{f}_{9>}}{5}$, (b is 3 and becomes 5), see § 79.

4) the dissonant tone turns into some other dissonant tone, for example: $\overset{5<}{c} = \overset{7<}{am}$.

There is an endless field of possibilities. All we have to remember is, that it is possible to change the meaning of a single tone (with or without enharmonic modulation) and make it the means of a modulation. The single tone can be (normal, raised or lowered) prime, second, third, fourth, fifth, sixth, seventh, even octave, ninth or tenth within the new chord. By the intermingling of all the various artifices explained, by their association and combination among themselves in a thousand ways, there results the infinite wealth of modern harmony. Still a composer may always discover some new ingenious arrangement, or some unforeseen application.

The student should modulate from one major key to every other major or minor key, and from one minor key to every other minor or major key. He should also return to his original key, such return may be direct or circuitous. Employ as many of the resources of modulation as possible, and use embellishments where they come in naturally. Extend each modulation into a regular phrase, say four measures. Work in various rhythms.

Another mode is that of using a series (chain) of modulations between the key to be quitted and the one to be arrived at. Suppose a circuitous, or combined, modulation were divided into two sections, then the principal thing to observe is that the last step be a simple one ; for instance, in going from C major to B major it is preferable to go to E major first, rather than touch upon G major and then go to B. In going from C major to D♭ major, A♭ major is a better bridge than F. There are modulations which go beyond the key aimed at, in order to make a return modulation (usually a Fifth step) for example C major—D major—G major.

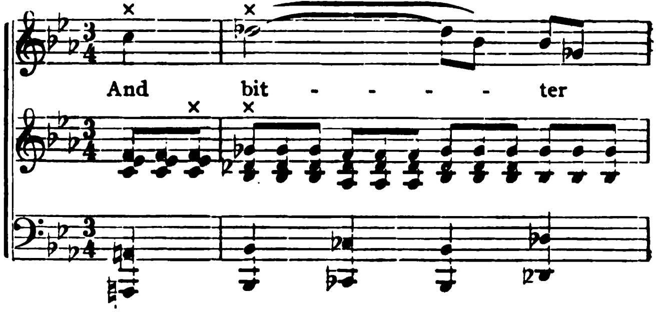
The student, who wants to become an accomplished musician, is urged to enter now upon the study of Counterpoint and Musical Form.

§ 83. CONSECUTIVE FIFTHS. The absolute prohibition of consecutive fifths is really a remnant of ancient times. In the 10th–13th centuries the oldest and most primitive kind of polyphonic music consisted of consecutive fifths, called Organum. But the strict regularity of moving in fifths was finally considered monotonous and a reaction set in prohibiting progressions in fifths altogether. About the 14th century the rule arose to avoid consecutive fifths and octaves, and it was pretty well observed until Beethoven's time, when he and others began to make distinctions between what was correct and allowable and what was not. This paragraph is not intended to encourage the pupil in writing fifths, but merely to explain to him under what conditions consecutive fifths are permissible. Forbidden consecutives are most objectionable in vocal music or in string quartets where each part stands out distinctly. In piano or orchestral music the bad effect is often lost in the mass of sound. (Compare § 16.) This rigorous rule of consecutive fifths is indispensable for the student. The great composers have found ways of using consecutive fifths to advantage, and derived from them good effects, as the following classification will show.

1) Consecutive fifths can occur under certain conditions. For example, when a song written for tenor (Ex. 191) is sung by a soprano, or when a song written for soprano is sung by a tenor. Innocent consecutive fourths are then turned into prohibited fifths.

Schubert. Dying Strains, No. 2, Warrior's Foreboding.

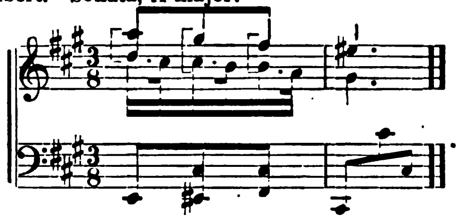
Ex. 191.



2) Consecutive fifths can recur upon the accented beat or accented parts of beats. They point to sequential formations.

Schubert. Sonata, A-major.

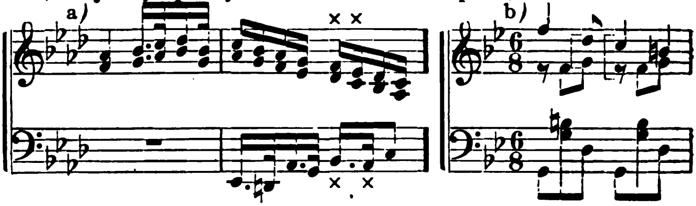
Ex. 192.



3) Consecutive fifths may be disguised by rests, suspensions etc., but they must be considered faulty where no relationship exists.

Mozart. E♭-major Symphony. Mendelssohn. Op. 19, No. 6. Barcarolle.

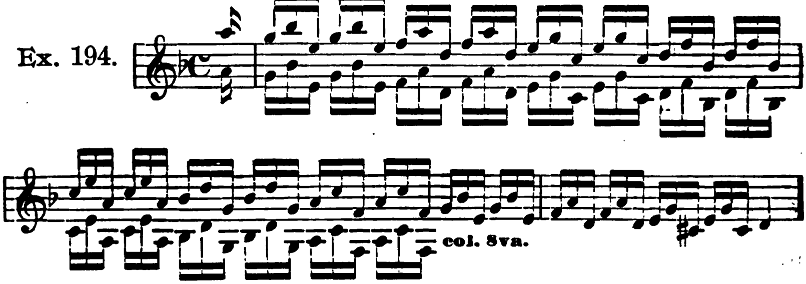
Ex. 193.



4) Consecutive fifths can occur in arpeggio'd chords in sequences.

Bach. Toccata, D-minor.

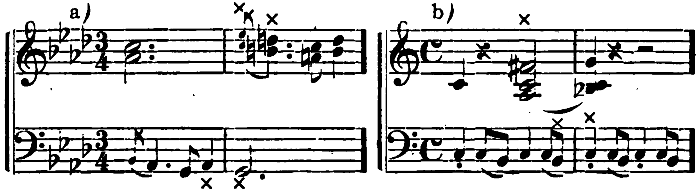
Ex. 194.



5) Consecutive fifths can occur by means of grace notes (appoggiaturas) auxiliary, passing tones, etc. Very numerous, usually unnoticable on account of the tones swiftly passing the ear.

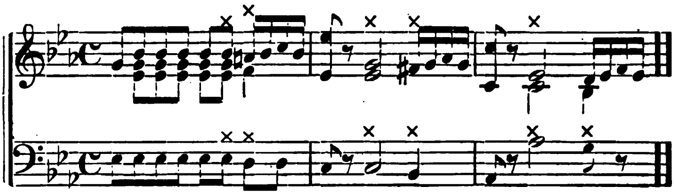
Weber. Invitation to Dance. Haydn. Military Symphony.

Ex. 195.



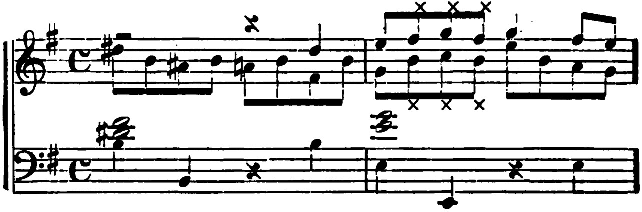
Mozart. Overture. Magic Flute.

Ex. 196.



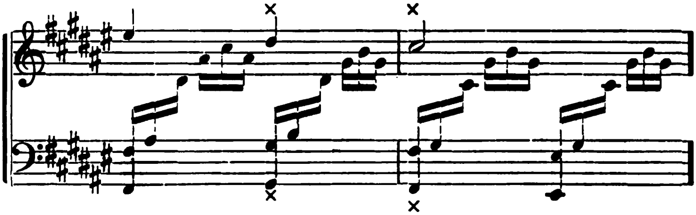
Gluck. Armide, Act II, Scene 3.

Ex. 197.



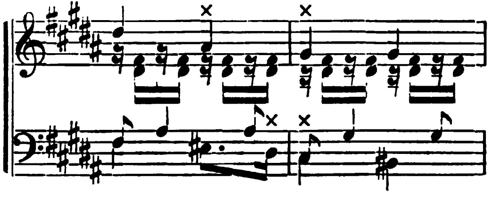
Schumann. Op. 28, No. 1, Romance.

Ex. 198.



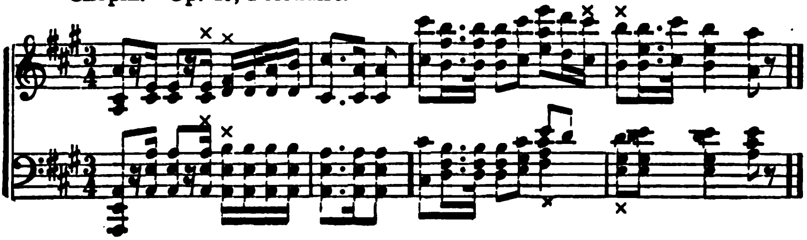
Schumann. Op. 39, No. 6. Schöne Fremde.

Ex. 199.



Ex. 200.

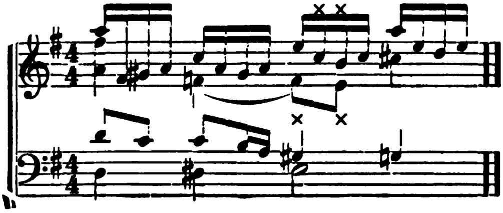
Chopin. Op. 40, Polonaise.



6) Consecutive fifths can occur when a certain figuration motive is persisted upon.

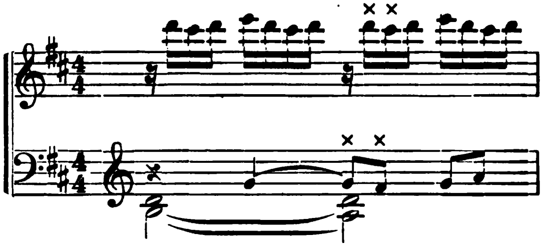
Bach. St. John-Passion, No. 25, Chorus.

Ex. 201.



Beethoven. Op. 10, No. 3, Sonata.

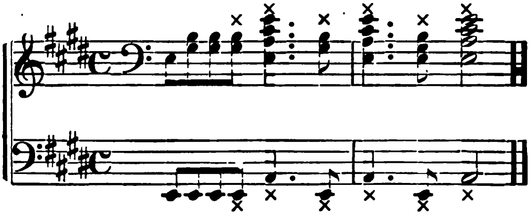
Ex. 202.



7) Consecutive fifths can occur between the Dominants and their Tonic.

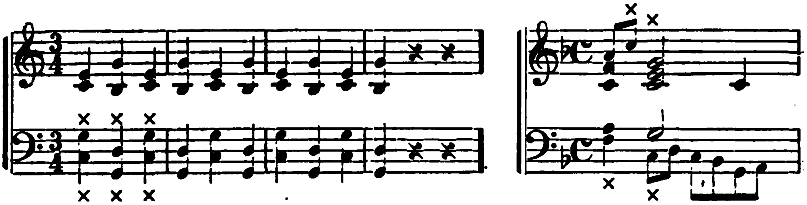
Mendelssohn. Overture. Midsummer Night's Dream.

Ex. 203.



Ex. 204.

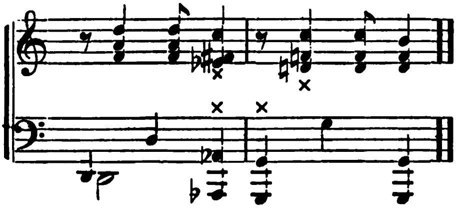
Chopin. Op. 24, No. 2, Mazurka. Schumann. Op. 15, No. 7, Träumerei.



8) Consecutive fifths are allowed in the resolution of the D^9, $\not{D}^{9>}$ and $\not{D}^{9>}_{5>}$ chords.

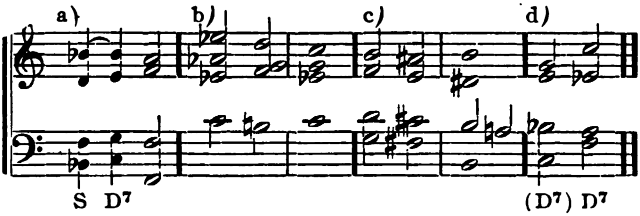
Schumann. Op. 15, No. 9, Kinderscenen.

Ex. 205.



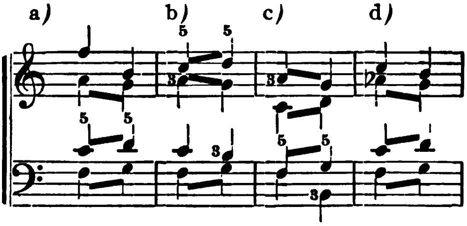
Consecutive fifths are also allowed between a S and a D^7, the sustained tone helps to conceal (counteract) the effect of the fifths, Ex. 206 a). Consecutive fifths may occur between two seventh chords when they are related, Ex. 206 d).

Ex. 206.

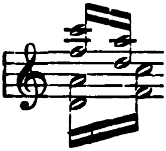


Consecutive fifths are occasionally excused between subdominant and dominant, when one of the tones forming the interval of the fifth in the second chord is brought in contrary motion to the consecutive fifths, or when the thirds of the chords are in different octaves and parts.

Ex. 207.

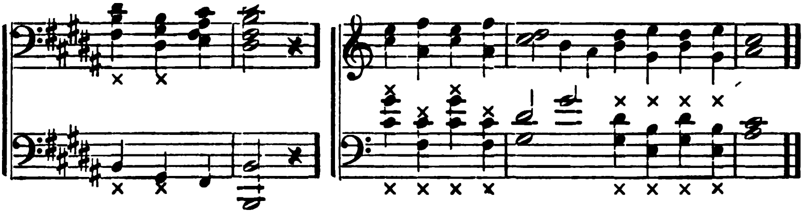


9) Consecutive fifths are allowed between the principals and their relatives. Consecutive fifths by leap can occur when the S^6 is brought in a broken form thus: This sounds well because the ear does not perceive successions of fifths, but merely a rhythmical figuration of the entire S^6 chord.



Ex. 208.

Schumann. Paradise and the Peri. Liszt. “La Romanesca.”

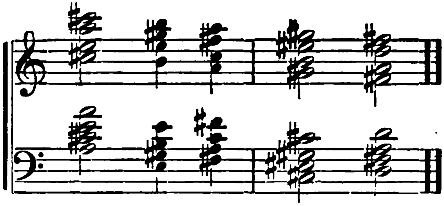


Chromatic consecutive fifths between T and aT or mT and amT can be seen in Examples 79, 80 and 81. The fact is that consecutives can occur between any related chords of a key, provided they do not contradict a rational leading of parts (voices). See also half tone consecutive fifths in Ex. 84 b) aDr to SS.

10) Some consecutive fifths and octaves are to be looked at merely as filling-in parts.

Beethoven. Op. 53, Sonata.

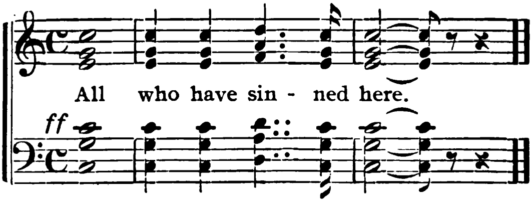
Ex. 209.



Take away in all the chords the three upper notes in the bass staff and the lowest note in the treble, and the consecutive fifths and octaves will disappear. The following extract is merely one melody (part) strengthened in octaves and fifths.

Gounod. Faust, Finale.

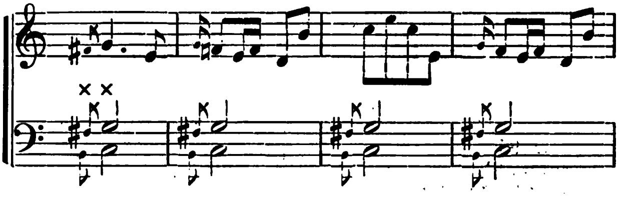
Ex. 210.



11) Consecutive fifths have been used as a means for expression and coloring. For instance in imitating the bagpipe:

Haydn. Symphony, C-major.

Ex. 211.



A beautiful piece of coloring of this kind is to be found in Pucini's "The Bohemians," where descending staccato fifths admirably represent the falling of snowflakes and the bleak winter winds.

§ 84. CONCLUDING REMARKS. The elaboration of Harmony is the work and thought of centuries. The masters with delicate artistic sensibility are the ones who make the advances in music by their refinement of feeling for Harmony and a boldness in accepting that feeling as a guide in contradiction to existing practice. Theorists endeavor to explain the results when all is accomplished. Only those rules that the masters themselves observe can be rules, and there are but a few absolute rules above time and taste. Studying the works of the master musicians and the works of the theorists of many schools and times, I have collected everything that might help the harmony pupil to better understand and enjoy the endless world of Harmony. I have aimed to select the best and most advanced ideas out of all methods, always searching for the most practical, the simplest, yet most comprehensive. I owe a great deal to the works of all distinguished, old and modern, theorists. Where I went farther than any, I did so upon the principle of analogy and the practice of modern composers. There is not a single statement made in this book which is not corroborated by scientific research of some great theorist, or by the practice of some master composer. Although different from the current books on Harmony, this method is, nevertheless, founded upon the most advanced ideas ever developed and scattered among many systems. A method which is to explain the intricacies of modern Harmony must naturally possess advanced ideas. I hope that my work of uniting the various advanced ideas (and some of my own) into a consistent method was not a labor in vain. The book itself will explain everything of the method. Should my work be considered a successful effort toward simplifying the system of Harmony, and of making the study of it profitable and an intellectual enjoyment, then I shall be happy to have contributed my share towards improving the teaching of one of the most fascinating subjects of music.

CARL W. GRIMM.

Cincinnati, July 20, 1901.

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ERRATA.—(Part One.)

On p. 6. line 12 from below read 3 instead of 8.
On p. 25, insert time signature 𝄴 in Ex. 13.
On p. 28, place . . under third note in Ex. 38.
On p. 30, Ex. 22, No. 7, read a instead of f in alto.
On p. 39, add . after first note in Ex. 76.
On p. 53, add c flat in the signature of Ex. 104.